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COLLECTIVE AGENCIES FOR THE ADMINISTRATION OF COPYRIGHT

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The analysis and conclusions of this study do not necessarily reflect the views of the Department.

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FOREWORD

This series of studies concerning aspects of copyright law was initiated to provide a better understanding of some important problems and issues involved in the revision of the Canadian Copyright Act. The present Act is now more than fifty years old. The wide breadth of legal, economic and technological developments since the Act was proclaimed underlie the significance of the revision process. The creation and dissemination of information is becoming an increasingly important resource of our society. In addition, the copyright community, including authors, publishers, the film and video industries, broadcasters, the recording industry, educators, librarians and users, contributes hundreds of millions of dollars to the economy. For this reason the Policy Research, Analysis and Liaison Directorate of the Bureau of Policy Coordination felt it necessary to undertake in-depth economic and legal research into the cultural, economic and legal implications of the most important of the copyright issues.

With respect to the appropriateness of the economic studies of this series the following passage from the 1971 study of the Economic Council of Canada entitled Report on Intellectual and Industrial Property is perhaps the most perceptive and eloquent:

> It is sometimes implied that where cultural goals are important, economic analysis, with its base associations of the market place, should take a back seat. But this involves a serious misconception of the proper and useful role of economic analysis. It may well be true that in the final analysis, economics is much more concerned with means than with ends, and that the really fundamental "achievement goals" of a society are largely, if not wholly, non-economic in nature. It is also true, however, that, in practice, means can have an enormous influence on ends, whether for good or ill, and that as a result, the systematic analysis of economic means is indispensable both in the specification of social goals and the planning of how to achieve them. In the case of cultural goals, among others, economic analysis can be of great help in bringing about a clearer identification of the goals in the first place, and then in planning for their attainment by the shortest, least costly and most perseverance-inducing route.

> It is particularly important that the relevance of cultural goals in a policy-planning situation should not be used as a smoke screen behind which material interests are allowed to shelter unexamined. In an increasingly service-oriented and knowledge-based society, cultural matters in the broadest sense are to a growing extent what economic life is all about. They must not fail to be studied in their economic as well as their other aspects. (pp. 139-140)

It is within this spirit that the economic studies completed for the Branch have been commissioned and carried out.

In addition to internal studies, the Branch has contracted with research academics from the Canadian university community who have a special interest in copyright. The external funding of research provides the Branch with new insights and perceptions from some of the most highly skilled academics in Canada with respect to the many complex issues inherent in the revision of the Copyright Act. Additionally, it serves to foster an interest and involvement in these important policy issues amongst others within the academic community. Such involvement and input can only lead to a better understanding and a consequent improvement in the copyright policy formation process.

This study by Professor Douglas A. Smith of the Department of Economics at Carleton University evaluates the economic implications of copyright collectives. The author analyzes the incentives to establish collectives, their potential development and their economic impact. In preparing the study extensive consultations took place with the major associations representing copyright owners and users in a wide variety of sectors. This consultative process has provided the author with a comprehensive overview of the concerns of those groups likely to be impacted upon by collectives.

Given the rigor of the economic analysis and the lucid explanation of all the relevant factors surrounding this issue, this paper should be of interest to both the academic community and all those groups interested in copyright law policy formation.

Fenton Hay

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SUMMARY

This study deals with the economics of copyright collectives. It consists of an analysis of the incentives to establish collectives, and of the potential development and economic impact of collectives. The concluding chapter provides an analysis of the policy issues raised in the study and deals specifically with the extent to which the activities of copyright collectives might be regulated by government.

Chapter I provides some background on copyright collectives and reviews various proposals that have been made to allow or encourage the development of new collectives. In the study, copyright collectives are defined as organizations created to collectively enforce some or all of the rights granted under the copyright system in cases where private enforcement of these rights is not economical.

The central factor in generating interest in copyright collectives has been the development of new technology that has lowered the cost of reproducing copyright material. These developments have generated new or secondary uses of copyright works for which copyright holders are either not compensated or are not compensated in the same way that they are compensated for traditional uses. Collectives would be a method through which copyright holders could capture the returns from secondary markets in which their materials are used.

Chapter II deals with the economic rationale for copyright protection. This rationale is based on the problems of appropriating the returns from creative outputs in the absence of copyright. If appropriability is incomplete, fewer creative outputs will be produced than under a system of greater appropriability. The optimal degree of copyright protection must, therefore, balance the welfare loss from incomplete appropriability against the welfare loss associated with higher prices and reduced circulation resulting from the copyright grant.

This framework for analyzing copyright problems is then applied to the collective exercise of the property rights conferred by copyright in the secondary market. The central result of this analysis is that the desirability of copyright collectives, when analyzed in terms of economic efficiency, depends on the extent of transactions costs relative to the potential income for creators from the secondary market. It should be emphasized that any conclusions about the efficiency of collectives must include a consideration of the costs borne by users under different institutional arrangements.

Chapter III deals with the potential impact of new copyright collectives and with the likelihood that new copyright collectives will actually emerge. The operations of the existing performing rights societies in the music business are examined in this chapter as a guide to the potential impact and operation of collectives in other areas.

The major points made in Chapter III pertain to transactions costs. The nature of the operations of existing collectives are largely determined by the extent of these costs for the rights which they administer. The key issue for the analysis of potential new collectives is therefore the extent of the transactions costs they are likely to face. This issue of transactions costs is the most important and most difficult one confronted in the study. New copyright collectives have the potential to increase social benefits if they can operate effectively without incurring high costs. With this in mind, Chapter III then discusses a number of areas, such as photocopying, for which new collectives have been proposed.

Chapter III provides no single conclusion about the extent of transactions costs and the likelihood of new collectives. In some areas, transactions costs appear substantial, and this suggests that the activities of collectives in these areas will be quite limited if they are required to be self-supporting. In other areas, transactions costs are more moderate but problems exist in terms of underlying copyright obligations. The absence of specific conclusions in this chapter reflects the difficulties associated with assessing the transactions costs facing organizations which, at this point, do not exist.

The general conclusion of this study is that, by strengthening the incentive features of the copyright system in secondary markets, copyright collectives may promote economic efficiency. The size of the efficiency gain depends on the extent of transactions costs and the degree of competition in the market for copyright works. If collectives extend their operations into primary markets and increase the degree of monopoly, this can eliminate the gains from greater appropriability. Chapter IV considers the broad outlines of the regulatory framework that might be put in place to ensure that collectives do not reduce the degree of competition in the primary market. The primary vehicle in this regulatory framework is the Copyright Tribunal, which could, on its own initiative, investigate the impact of collectives on the degree of competition. It could also respond to complaints from users of copyright material about the setting of rates or from members of collectives about procedures for revenue distribution by collectives.

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INTRODUCTION

The purpose of this study is to investigate the potential development of copyright collectives, to assess their economic impact and to consider the extent to which their activities might be regulated.

Copyright collectives are organizations designed to collectively enforce some or all of the rights granted under the copyright system.[1] This includes establishing royalty rates, monitoring the degree of use of protected material, collecting and distributing royalties and prosecuting infringement cases. In Canada the performing rights societies are currently the most important collectives, and their operation and regulation by the Copyright Appeal Board have been an explicit component of the Copyright Act since 1931.

Rapid advances in technology in a number of areas, particularly in photocopying, audio-visual recordings and rediffusion of television broadcasts, have stimulated widespread interest in extending the concept of performing rights societies to other areas. This study provides an assessment of the potential growth, market power and other aspects of the establishment, behaviour and possible regulation of collectives.

The focus of this report is on public policy with respect to copyright collectives. The structure of the report is as follows. Chapter I briefly describes the positions on collectives that have been put forward by the Economic Council of Canada (1971), by Keyes and Brunet (1977) and by Magnusson and Nabhan (1982). It also provides a description of the existing legal framework governing the operation of the performing rights societies. Chapter II provides an outline of the economic analysis of copyright, which includes a description of the property-rights approach to the problems of copyright. In Chapter III this analysis is used to assess the economic impact of copyright collectives, with particular emphasis on the extent to which it is appropriate to apply the literature on the economics of trade unions to the activities of collectives. Chapter IV discusses the responsibilities of the Copyright Tribunal, while Chapter V presents a summary and the conclusions of the study.

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1. The term "collectives" in this study is used in a generic sense. It could include firms, agencies or cooperatives.

Chapter I

PROPOSALS FOR CREATING COPYRIGHT COLLECTIVES

Support for the concept of new copyright collectives is directly linked to recent changes in technology. New technology has lowered the cost of reproducing protected works and has generated a situation in which copyright holders feel it is necessary to enforce rights that had not been much affected by earlier technologies. The three most influential Canadian documents dealing with the future role of copyright collectives are the report of the Economic Council of Canada (1971), the more recent report to the Minister of Consumer and Corporate Affairs Canada by Keyes and Brunet (1977) and the study prepared as part of the copyright revision process by Magnusson and Nabhan (1982). These studies serve as a basis for putting the issue of collectives into some perspective.

The Economic Council

The Economic Council explicitly recognized the role of technology in creating many of the so-called problem areas of the copyright system. It refers to a "growing enforcement problem"[1] and acknowledges that copyright goals are "rapidly moving targets."[2] According to the Economic Council, the general principles underlying the copyright system can be described as follows:

> compensation should be in proportion to use and each user should pay his fair share.... the system should be so designed as to be practicably enforceable, without excessively costly...policing. (1971, p. 141)

The Economic Council viewed the primary purpose of the copyright system as the provision of incentives for creators and argued that "the Canadian copyright system should be aimed as exclusively as possible at its primary

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1. Economic Council of Canada (1971), p. 133. Although the Council does not provide documentation for this assertion, the reference is apparently to such practices as multiple copying of copyright material through the use of photocopying machines.

2. Ibid., p. 140. This movement is a function of new technology.

incentive function" (1971, p. 143). Those things which ought not to be an aspect of the copyright system include the pursuit of cultural objectives, which should, according to the Economic Council, be dealt with directly, rather than indirectly through preferential copyright treatment for particular groups.

Within this overall framework, the Economic Council perceived an expanded role for collectives in enforcing property rights and distributing revenues. The major recommendations of the Council with regard to collectives included:

> an adjustment of the Copyright Act to permit the wider use of the performing-rights-society approach, including its extension into the field of printed and other materials...[and] that the powers of the Copyright Appeal Board to regulate the fees and royalties of such "collectives" and the powers of the Minister to issue compulsory licences must also be enlarged. (1971, p. 151)

A further important recommendation by the Council dealt with the extent to which creators might be required to enforce these rights collectively. The Council specifically asserted that "the extension of public regulation...would not be such as to force an author or other creative person to yield up his work to any particular processing and distributive system" (1971, pp. 151-52).

The Report of the Economic Council displays the standard economic view of organized action by producers. The Council supports the idea of collectives but does so somewhat reluctantly as a result of concerns for the potential market-power effects of collective action by producers of copyright material. Although the legal provision of copyright provides creators with a monopoly over a particular form of expression of an idea, there are so many competing forms of expression that monopoly power is quite limited.[3] The Economic Council proposes regulation of col-

---

3. Monopoly power generally refers to the ability of a seller to set price in excess of marginal cost. However, the extent to which a profit-maximizing individual or firm will choose to increase price above marginal cost is a function of the elasticity of demand for the product. The existence of close substitutes for copyright works generally produces a substantial elasticity of demand and therefore a relatively low degree of monopoly power. Although economists generally refer to copyright as conferring some monopoly power, its extent must be considered in light of the preceding discussion.

lective enforcement of rights by a tribunal to prevent a reduction in the existing degree of competition among holders of copyright.[4]

This type of concern with the possible anticompetitive effects of copyright collectives is indicative of the general tension underlying the operation of the copyright system. There is a continuing trade-off between the incentive effects of higher prices for producers and the demand effects of higher prices on consumers. In the case of collectives the Economic Council concluded that technology has weakened the property right of producers sufficiently to justify a collective for enforcing some of the property rights granted under the Copyright Act. Since this type of collective is assumed to have to be sufficiently broad to be efficient, the Council recommends regulating it like a natural monopoly.

Keyes and Brunet

In their report, Keyes and Brunet foresee the need for collectives in the areas of a performing right for sound recordings, performers' copyright and reprography. In their view, these collectives would use the existing performing rights societies as a model and would therefore hold and administer rights, distribute royalties and represent their members in front of the relevant public organizations.

The rationale for the extension of the principles underlying the existing musical performing rights societies to other areas is described by Keyes and Brunet in the context of new and previously unanticipated uses of protected material. In the realm of photocopying, for example, Keyes and Brunet point out that existing concepts of fair dealing approved by authors and publishers predate widespread photocopying. Copying for private use has clearly been undertaken since the print media began, but until recently this copying was relatively infrequent, limited in length and generally unlikely to compete significantly with the copyright material.

---

4. More recently, the Economic Council, in Reforming Regulation (1981), has raised questions about the benefits from regulation; however, its original position would likely continue to stand in areas where natural monopoly is a problem.

The basic argument for collectives used by Keyes and Brunet among others is that technology has altered the pattern of use of protected material in such a way that the collective exercise of rights is necessary to restore the position held by creators prior to changes in technology and as intended by the framers of the original Copyright Act. The Keyes and Brunet conclusions on collectives are as follows:

> creators and owners of copyright should organize to protect their rights and to exploit them in a way that satisfies both their interests and the contemporary needs of society...it should be possible to build upon the experience of the collective societies already existing and to devise new contractual arrangements adapted to the nature of those rights to be collectively exercised. (1977, p. 212)

Keyes and Brunet argue that there is nothing in the Copyright Act to prohibit organizations designed to serve the collective interests of copyright holders. This is in apparent contrast to the Economic Council, which recommended "an adjustment of the Copyright Act to permit the wider use of the performing-rights-society approach."[5] Neither report explicitly discusses the relationship of collectives to existing competition law, but the Economic Council recommendation can be interpreted as a reference to competition policy. In recognition of the expanded power of collectives, Keyes and Brunet recommend that the Copyright Appeal Board be expanded to regulate the new collectives.

Keyes and Brunet argue that to be effective, these collectives would have to be structured so as not to overlap in their coverage of rights.

> a multiplicity of societies administering identical rights should not be encouraged, rather, potentially monopolistic societies should be controlled and regulated. (1977, p. 215)

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5. Economic Council of Canada (1971), p. 151; cited by Keyes and Brunet (1977), p. 210.

This statement again recognizes the underlying problem facing the copyright system referred to in the discussion of the work of the Economic Council. According to Keyes and Brunet, copyright policy must attempt to balance the incentive effects of stronger property rights for producers of new works against the costs resulting from price restrictions on the use of existing copyright materials.

The Keyes and Brunet position on collectives can best be summarized with the two recommendations they make on the subject.

> 1. That the collective exercise of copyright be encouraged as a means of satisfying the needs of both authors and users.
>
> 2. That, if any collectives are formed to exercise any right given under a new Act, their regulation, control and review be the responsibility of the appropriate government agency designated. (1977, p. 214)

Magnusson and Nabhan

The copyright revision study by Magnusson and Nabhan deals with exemptions under the Copyright Act. Exemptions are defined as uses of copyright material that for reasons of public policy are exempt from the control of the copyright holder.

The relationship between exemptions and the operation of collectives can best be illustrated by means of an example. Under the existing Copyright Act, educational institutions are exempted from payment for the performance of musical works which are otherwise subject to copyright protection. In the area of photocopying by schools, there is currently no educational exemption, and a possible future scenario would see a reprography collective negotiating with educational users of copyright material. If, on the other hand, a new Act contained an educational exemption for photocopying, there would clearly be no role for a collective in this area. There is, therefore, a relationship between the breadth of exemptions and the operation of collectives.[6]

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6. The educational exemption and other exemptions are generally justified in terms of the necessity of providing the exempted use at a zero price, often to charitable or

Magnusson and Nabhan do not recommend a general educational exemption in the area of photocopying and, in fact, suggest that collectives should be established to provide a vehicle through which users would compensate owners of copyright works. In their view a collective would negotiate blanket licences with the relevant user groups and then distribute these revenues to authors and publishers on the basis of sample surveys. The model of the musical performing rights societies is explicitly referred to as one which would be applicable for a reprography collective.

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educational organizations. In Chapter II the issue of transactions cost is raised and related to conditions under which the equivalent of an exemption might be chosen purely on the grounds of economic efficiency. This issue is not dealt with by Magnusson and Nabhan.

Chapter II

THE ECONOMICS OF COPYRIGHT

The Allocation of Resources to Creative Works

This section provides a brief exposition of the factors underlying the allocation of resources to the production of creative works. Although some would argue that it is not possible to analyze creative or cultural works in the same way that the market for wheat or any other commodity is analyzed, it is the contention of this section that the underlying framework must be the same for any market.

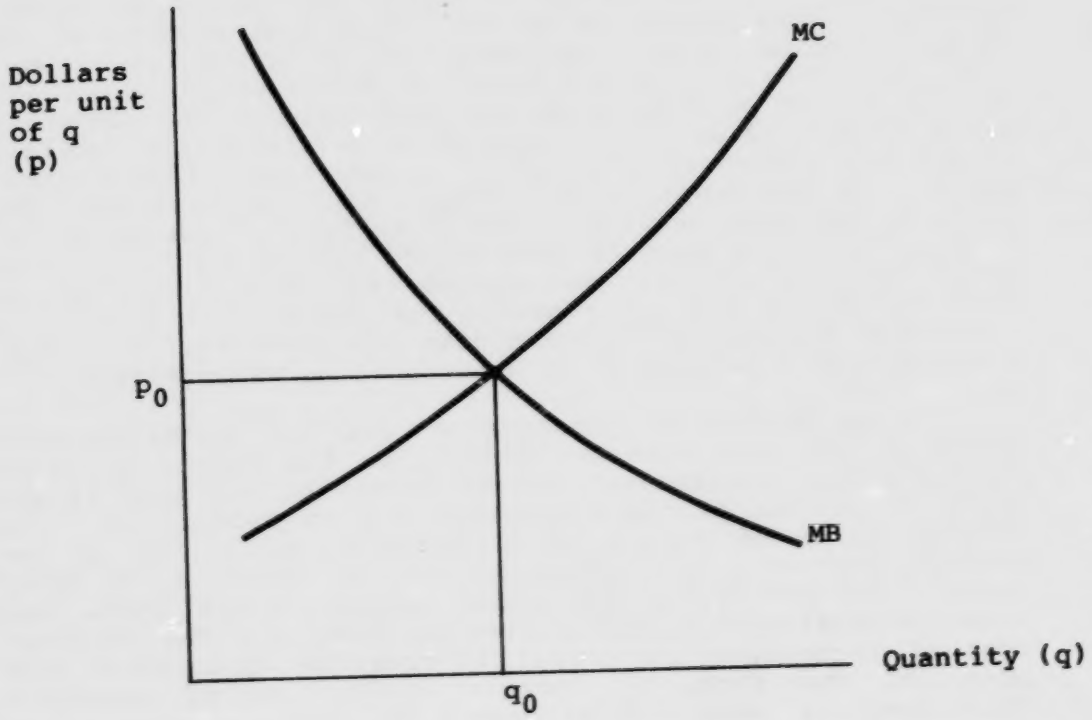
There is obviously a demand for creative works. Underlying this demand is the fact that most members of the community value creative outputs. If, as an extreme assumption, we begin with a situation in which no resources are devoted to the production of cultural outputs, the community would clearly place a very high value on the initial cultural outputs produced if we were to begin to produce these goods. As the quantity of cultural outputs increases, the value or marginal benefit attached to further increases declines. Although many factors affect the demand for cultural or creative outputs, we presume that this demand shares with the demand for other goods, the property of a negative relationship between value and quantity consumed. This negative demand relationship is shown as line MB in Figure 1.

The supply of creative or cultural works is also based on the same elements underlying the supply of other commodities. Fundamental to the supply of any good is the opportunity cost of the resources used to produce it. The initial units of output of a commodity will draw on resources currently providing the fewest benefits in other areas. As production increases, resources are drawn away from increasingly valuable uses elsewhere. The marginal cost of increasing the output of creative or cultural outputs is, therefore, an increasing function of quantity. This positive supply relationship is shown as line MC in Figure 1.

The fundamental problem, which this analysis provides a framework for dealing with, is the determination of the best or "optimal" quantity of resources to be used in the creative or cultural industries. In Figure 1, this quantity is quantity q_0, which is the output at which MB and MC intersect. That this is the best allocation of resources to this activity, from the viewpoint of both pro-

Figure 1

Demand, Cost and Output



ducers and consumers, can be determined by considering outputs greater than and less than q_0. If, for example, we were to produce some output less than q_0, then we are failing to produce units of output which have benefits in excess of their cost of production. Similarly, if we were to produce some output greater than q_0, we would have marginal costs in excess of marginal benefits. We would then be producing units of output beyond q_0, the cost of which exceeded their value to society.

This example is one in which determining the best quantity of a particular output is relatively straightforward. The following section shows how this framework must be altered to take account of the particular characteristics of the output of the creative or cultural industries.

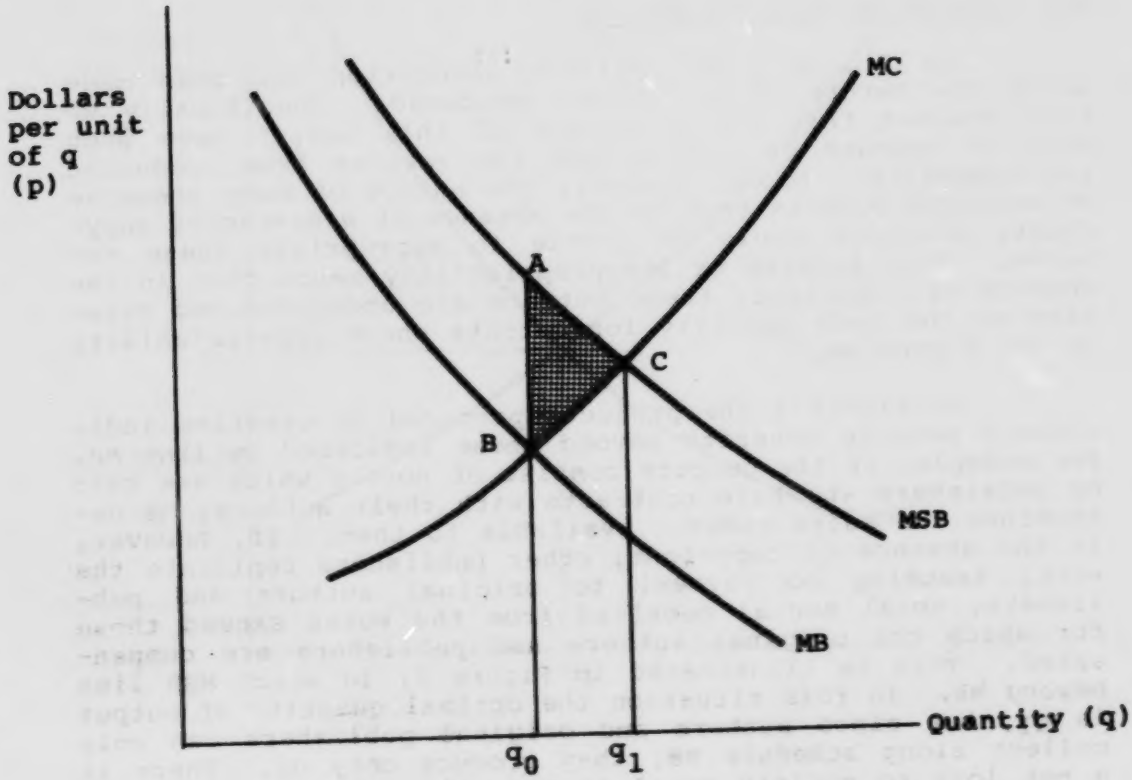
The Problem of Appropriability

In Figure 1 an implicit assumption has been made about the nature of the output produced. Specifically we have assumed that the producers of this output have been able to capture or appropriate the returns from producing the commodity. It is, however, the nature of many creative or cultural outputs that in the absence of a system of copyright, creators would be unable to appropriate these returns. This problem of inappropriability means that in the absence of copyright, these outputs are underproduced relative to the best quantity for outputs where appropriability is not a problem.

In Figure 1 the products produced by creative individuals provide benefits beyond those indicated by line MB. For example, if the outputs consist of novels which are sold by publishers who have contracts with their authors, MB determines the sales revenue available to them. If, however, in the absence of copyright, other publishers replicate the work, assuming no payment to original authors and publishers, total social benefits from the works exceed those for which the original authors and publishers are compensated. This is illustrated in Figure 2, in which MSB lies beyond MB. In this situation the optimal quantity of output is q_1, but since authors and original publishers can only collect along schedule MB, they produce only q_0. There is a net loss to society equal to triangle ABC as a result of the failure to produce outputs between q_1 and q_0. In the absence of copyright, reproduction without payment increases the circulation of volumes produced but leads to an underproduction of titles.

Figure 2

Demand, Cost and Output with Incomplete Appropriability



Output Under a System of Copyright

Under a system of copyright, authors and publishers are protected against duplication without payment by subsequent publishers. This institution increases appropriability and increases the returns to producers of cultural or creative works. However, the copyright system, by removing the possibility of unauthorized copying, puts the holder of the copyright in a position of being the sole seller of the protected work. This has the effect of increasing the price that is charged for copyright material. As has frequently been pointed out, the optimal degree of copyright protection is determined by attempting to strike a balance between the welfare loss associated with insufficient output when appropriability is incomplete and the reduction in welfare associated with the reduced circulation of copyright works as the result of the higher price.

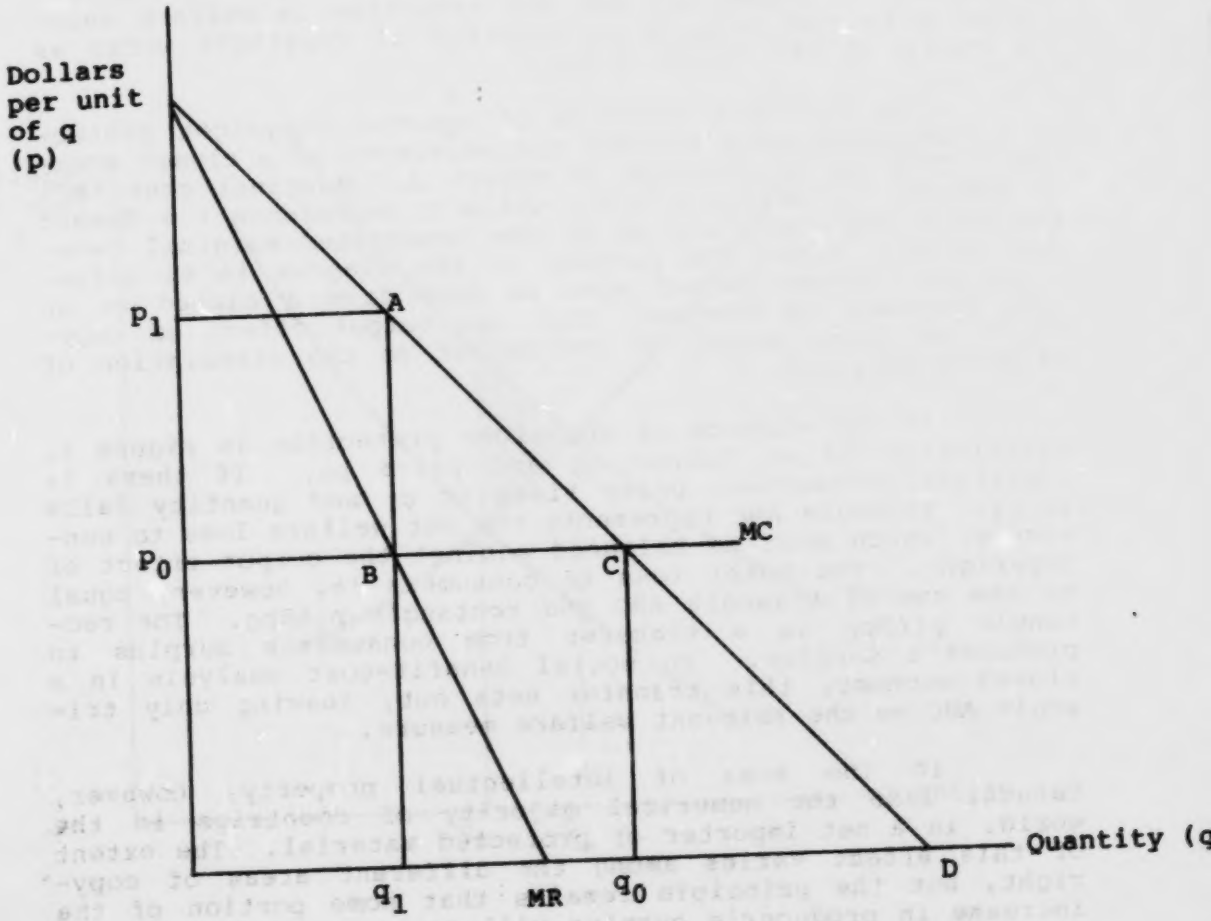
The standard analysis of optimal copyright protection discussed above assumes the existence of a closed economy. This is illustrated in Figure 3. Marginal cost (MC) is assumed to be horizontal, while D represents the demand for copyright works and MR is the associated marginal revenue curve. Since the purpose of the diagram is to illustrate the issues raised when we move from a closed to an open economy, we abstract from the output effect of copyright and focus solely on its impact on the circulation of existing material.

In the absence of copyright protection in Figure 3, equilibrium is at output q_0 and price p_0. If there is copyright protection, price rises to p_1 and quantity falls to q_1. Triangle ABC represents the net welfare loss to consumers, which must be balanced against the output effect of copyright. The total loss to consumers is, however, equal to the sum of triangle ABC and rectangle p_1ABp_0. The rectangle p_1ABp_0 is a transfer from consumer's surplus to producer's surplus. In social benefit-cost analysis in a closed economy, this transfer nets out, leaving only triangle ABC as the relevant welfare measure.

In the area of intellectual property, however, Canada, like the numerical majority of countries in the world, is a net importer of protected material. The extent of this effect varies among the different areas of copyright, but the principle remains that some portion of the increase in producer's surplus will go to nonresidents. If we are using social benefit-cost analysis from the point of view of Canada, this portion of the increase in producer's surplus can no longer be counted as an offset to the reduction in consumer's surplus.

Figure 3

Consumer's and Producer's Surplus



The source of this complication lies in Canada'a international copyright obligations.[1] These obligations are contained both in the Berne Convention signed in 1886 and amended by the revisions at Rome in 1928, and in the Universal Copyright Convention, which was signed in 1952. Since Canada is a net importer, the impact of copyright collectives is sometimes discussed in terms of the resulting flow of funds to non-Canadian holders of copyright. It will be worthwhile, therefore, to briefly summarize our international obligations and to indicate their possible relationship to copyright collectives.

The three basic principles of the Berne Convention are national treatment, automatic protection and independence of protection. For Canada, national treatment means that whatever copyright protection is afforded to Canadian nationals must also be afforded to nationals of other member countries. Automatic protection means the absence of formal requirements for nonnationals, and independence of protection means that Canadian treatment of nonnationals depends only on Canadian law and not on the degree of protection elsewhere. The distinctions are important because many incorrect interpretations of the Berne Convention refer to a requirement of "reciprocity." In fact, reciprocity is the opposite of the third principle and is inconsistent with existing international obligations. The question of international obligations and their impact, if any, on the desirability of copyright collectives is discussed in subsequent chapters.

The analysis of the optimal degree of copyright protection is essentially the same as for the optimal degree of patent protection. In both cases the costs of restricted use of protected material must be compared with the costs of having a smaller quantity of resources devoted to the production of cultural or creative works. There is an important difference, however, which makes the system of copyright less restrictive of use than the patent system. Under the system of copyright, only the form of expression of an idea is protected. This is in contrast with the patent system, in which the patent blocks related processes based on the patented principle. Therefore, under the copyright system, protected works will, in general, have many close

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1. For a complete discussion of these obligations, see Torno (1978).

competitors even though exclusive rights to each form of expression are granted.[2] The potential monopoly power for individual holders of copyright whose works must compete with each other will in most instances not be substantial.

The history of copyright legislation in a wide variety of countries indicates that governments have, in the absence of complete empirical evidence, decided that the output-increasing element of copyright laws compensates for the restriction on use resulting from higher prices. This is, however, not a universally held position, so it is worthwhile to examine some opposing viewpoints.

Critics of copyright protection have argued on a number of fronts, but their two central arguments can be summarized as follows.[3] First, it is argued, authors and other creative individuals are not solely motivated by financial returns. Even in the absence of copyright protection, literary and other outputs would continue to be produced. Second, from the point of view of publishers, the advantages of being first to the market with a particular work will be sufficient to lead them to continue to produce a large number of titles without copyright proteciton.

Although both of these points have some validity, they are not strong arguments. In the first case, it is probably true that many authors and creators derive substantial nonpecuniary benefits from their activities. It is, however, hard to imagine that all actual or potential entrants to the creative field are completely indifferent about financial rewards. Even if other factors affect supply, there will be less investment in creative activities if appropriability is incomplete. The second point about the lead time of original publishers is somewhat more of an empirical question. If infringing editions do have a lengthy lag between the publication of the original and their appearance, the restrictions on use of material that is now copyright could exist without copyright law. However, the modern technology of reproduction means that, for books as an example, the lead time of the first publisher would be measured in weeks or even days. This is the case for audio and visual recordings as well.

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2. In addition, independent creation is a defence against infringement of copyright.

3. For example, see Plant (1934), Hurt and Schuchman (1966) and Breyer (1970). For a forceful expression of the opposing view, see Tyerman (1974).

The impact of copyright protection on book publishing is discussed in detail by Hindley (1971) in his background report for the Economic Council of Canada. This discussion, which focusses on the difference in cost conditions facing initial publishers and copiers, serves to illustrate the central argument for copyright protection.

Hindley has characterized the argument against copyright as follows: "...copyright is limiting the use of something that is not inherently scarce..." (1971, p. 51). The point of this argument is that copyright works, once produced, should be distributed at the lowest possible cost. However, as Demsetz (1969) has argued, this separation between production and consumption is not helpful.

> The partitioning of economic activity into the act of producing knowledge and the act of disseminating already produced knowledge is bound to cause confusion when the attempt is made to judge efficiency. It is hardly useful to say that there is "underutilization" of information if the method recommended to avoid "underutilization" discourages the research required to produce the information. These two activities simply cannot be judged independently. Since one of the main functions of paying a positive price is to encourage others to invest the resources needed to sustain a continuing flow of production, the efficiency with which the existing stock of goods or information is used cannot be judged without examining the effects on production. (p. 11)

Although there is limited inherent scarcity in already produced works, resources to produce new works are scarce. In the absence of copyright protection the ex ante return expected by book publishers, for example, would be negative. Copiers would face only the marginal costs of reproducing the original, while the first publisher would have to incur the same variable costs plus a series of other costs, which would include payment to the author.

The Property-Rights Approach

The copyright issues examined above can also be analyzed in a framework that stresses the impact of property rights on economic behaviour and resource allocation. This framework emphasizes that property rules are determined through a political process in which the objective of the property rights that are selected is wealth maximization.

The property-rights approach to the analysis of economic problems is a relatively recent innovation and one which is particularly useful for analyzing problems revolving around intellectual property. In the property-rights approach the state defines and enforces property rights. As we have learned from the analysis of pollution in particular, many economic problems that have been referred to as externalities are the result of the absence of enforceable property rights (Dales, 1968). It is also now recognized that economic efficiency is closely related to the definition and enforcement of property rights (Furubotn and Pejovich, 1974). The property-rights link to economic efficiency in its strongest form is stated as follows: "The more complete and certain the specification of property rights, the greater the level of economic efficiency that is possible" (Baumol et al., 1979, p. 237).

In this framework the function of economic analysis is to indicate the impact, in terms of social benefits and costs, of different allocations of property rights. Property-rights allocations affect benefits and costs because property rules have an impact on the extent and characteristics of transactions among individuals. As this situation is described by Demsetz,

> if the main allocative function of property rights is the internalization of beneficial and harmful effects, then the emergence of property rights can be understood best by their association with the emergence of new or different beneficial and harmful effects.
>
> Changes in knowledge result in changes in production functions, market values, and aspirations. New techniques...invoke harmful and beneficial effects to which society has not been accustomed....emergence of new property rights takes place in response to the desires of the interacting persons for adjustment to new benefit-cost possibilities. (1967, p. 350)

This brief quotation effectively summarizes the issues underlying this study. The existing Copyright Act defines the rights of creators, but the case has been strongly made that this Act and the rights it defines have been overtaken by technology and that alterations in property rights in a new Act can produce beneficial social results. The way that this process has worked in the past and is expected to work in the future is effectively illustrated in the following quotation from one of the leading authorities on the Canadian system of copyright.

> The growth of the law of copyright protection has closely followed the development of mechanical means of reproduction. Literary copyright was protected only after the invention of printing; artistic copyright was only established with the expansion and the use of engraving and lithography. The rights to exclusive reproduction by means of records and other mechanical contrivances followed shortly after the invention of those devices. The Copyright Act was amended in 1931 to include within the definition of copyright the sole right to communicate a work by radio communication. No copyright legislation affecting television and rediffusion apeared in any Commonwealth country until 1956 although these rights were accepted by the courts as falling within copyright before they received statutory recognition. Just as the English courts adapted their judgments to the new medium of broadcasting, a word that did not appear in the Imperial Act of 1911, so it is probable that new and presently unknown methods and means of reproducing works will be recognized by judicial tribunals before legislation can be framed to meet the need. (Fox, 1967, p. 40)

The view that property rights are selected to promote the efficient allocation of resources suggests the usefulness of considering alternative systems of property rights in general categories. Following the classification of Dales (1975), there are basically three alternative systems of property rights. Each implies a different set of incentives, transactions and outcomes if applied to the same situation. They can be described as follows.

i) Exclusive and transferable rights. This type of rights assignment is a characteristic of the price system. The current system of copyright provides certain exclusive and transferable rights for a specified time period.

ii) Nonexclusive rights. This system provides open access to resources, and resources subject to these property rights are generally referred to as common property resources. The abolition of copyright, for example, would mean that the outputs of creative individuals, once revealed, would acquire common property status.

iii) Exclusive but nontransferable rights. This form of rights assignment generally describes the rights underlying the command economy. Exclusive property rights and resource allocation decisions are vested in the state. Although this is not generally relevant in the North American context, it would correspond to a situation in which the rights to creative outputs would be held by the state, which would compensate creators.

It should be emphasized that this classification simply defines a spectrum within which any observed system will fall. The existing Copyright Act in Canada would, as an example, correspond principally to the first category of exclusive and transferable rights, although at the end of the protected period, copyright works revert to the second category. To relate this classification system to work described earlier, it is the contention, for example, of Breyer (1970) that serious consideration should be given to moving the copyright system in the direction of the second category. The property-rights approach described here provides a framework for analyzing how such proposed alterations in property rights are likely to affect economic behaviour.

The Collective Exercise of Property Rights

A copyright collective can be defined as an organization established to enforce property rights which cannot be economically enforced on an individual basis. To anticipate the central point of this chapter, we would expect that collectives might fail to emerge for the following two reasons. First, there may not be a legally enforceable property right to serve as a basis for contracts. Second, although the property right exists, the transactions costs of enforcing the right are so high that it is simply not economical to attempt to do so, even on a collective basis.

Although it is possible to categorize the reasons for the absence of collectives in terms of either the absence of the underlying rights or high transactions costs, the property-rights approach stresses that these issues are related. Property rights themselves are created as a response to a given environment. Changes in that environment may alter the structure of transactions costs and the set of rights that are worth establishing (see Cheung, 1970). The environmental factor that appears to have the greatest impact in the area of copyright is technology.

The Economic Council in its 1971 study of intellectual property argued that copyright and other intellectual property areas should be looked at within the broad framework of information policy (especially pp. 27-30). Many information policy problems are therefore most effectively viewed as situations in which the delineation and enforcement of property rights have failed to keep pace with information technology.

In a policy framework the function or objective of a system of property rights is to maximize the net social benefits generated as a consequence of transactions made subject to the property rights. As a shorthand terminology, net social benefits generated by a particular activity are often referred to as the surplus to society or simply the surplus attributable to that activity. The function of a system of property rights is to minimize the dissipation of this surplus.

Efficiency and property rights. Consider, as an illustrative example, the discovery of a new oil pool. Assume that, under the "best" set of property rights,[4] the resource would generate revenues of $3 million, and total costs under that existing definition of property rights would be $2 million. The surplus attributable to this discovery would therefore be $1 million. If, on the other hand, the property rights to this resource were less clearly defined, we would expect a smaller surplus. It is well known, for example, that the total recoverable resource is a function of the number of wells drilled. In the absence of well-defined property rights we would expect too many wells and, as a result, revenues would fall and costs would increase. In the absence of any enforceable rights (an open-access resource or nonexclusive rights as defined above under The Property-Rights Approach), costs and revenues would be equalized and the total surplus would be dissipated. The negative aspects of this situation can be most starkly illustrated by asserting that in this case of complete dissipation society would have been just as well off if this resource had not been discovered. The absence of property rights can transform a valuable asset into one which is worthless.[5]

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4. The factors determining this best set of rights are outlined below.

5. This example abstracts from the general equilibrium effects of the disappearance of the resource in question. For a single oil field of the magnitude described in the example, this is a reasonable assumption.

The preceding example demonstrates that different systems of property rights produce different quantities of surplus. The best set of property rights can be defined as that set for which the total surplus to society is maximized net of the costs of establishing and enforcing these rights. For any defined set of property rights, the assumption of profit maximization is equivalent to the assumption that firms and individuals will attempt, through contractual arrangements, to minimize the dissipation of surplus subject to the costs of transacting under this given set of property rights. We will, in other words, always observe contracts designed to minimize dissipation subject to the constraint of existing property rules. This is not, however, equivalent to the surplus that would be observed under a different set of property rights. Contractual arrangements preserve the maximum possible degree of surplus under the existing rights structure, but a different structure may generate even more surplus. Copyright policy in this context consists of determining which rights structure generates the greatest surplus.

Consider, as a further example, the case of the fishery. This is a common property resource which has received substantial attention in the economics literature.[6] The argument proceeds by considering three alternative property rights regimes for the fishery, moving from a situation of no exclusivity to a comprehensive set of rights. For the analysis of copyright issues, the important comparison is between the final two cases of a limited set of rights and a more completely defined set of rights.

In the first case, there is a common property right to use the fishery. No individual fisherman has any incentive to conserve the resource: conservation practices, feeding, stocking or other forms of investment will be privately unprofitable, since part of the benefits will accrue to others. Each individual fishing unit extends its fishing effort until marginal private returns and costs are equated. However, by definition, private cost does not include the costs imposed on other fishing units. The result is entry until the surplus from the fishery is completely dissipated.

Consider now an initial definition of property rights that limits the number of fishing units. Assume also that this number is such that it generates some positive amount of surplus to the fishery resource. Even if the best

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6. This example is based on Cheung (1970).

number of fishing units has in fact been selected (that is, the number that generates the greatest surplus possible from restricting numbers alone), we may continue to observe dissipation relative to a situation of more completely defined rights. One obvious source of continued dissipation is in terms of quantity per boat. However, as Smith (1969) and others have shown, dissipation can take place at every margin along which decisions are made. These include crew size, boat size, mesh size (affecting size of fish harvested) and a variety of other decisions.

Given a restriction on the number of fishing units, it would be possible to observe contracts among units to suppress some wasteful types of activity. For example, a fishing season could be mutually agreed upon or there might be limitations on crew sizes. The point of this entire example, however, is that it is a mistake to assume that evidence of market arrangements to minimize dissipation necessarily implies optimality.[7] In a maximizing world these contracts will capture all of the possible gains under the existing property rights.[8] Many aspects of behaviour, however, remain unaffected by contract, and the economic policy problem is to determine whether a different set of property rights would permit a wider set of contracts which would even further reduce the dissipation of surplus. This concept, which is based on the work of Coase (1960), has a number of applications in the copyright field and will be referred to again in subsequent sections.

Collectives. As the preceding subsection indicates, the property-rights approach to economic problems revolves critically around the structure of transactions costs. From the point of view of society the desirability of copyright collectives will therefore depend on the costs of transacting in areas where collectives could potentially operate.

Transactions costs define the dividing line between contracts that are negotiated and enforced on an individual

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7. Optimality here should be understood in its economic sense as indicating a situation in which no improvements are possible when all the costs and benefits of a change are considered.

8. This point has been discussed by Cheung in the context of the patent system. His description of this point is as follows: "Under constrained maximization, any behaviour associated with the dissipation of rent must be consistent with the constrained minimization of the dissipation itself" (1976, p. 17).

basis and collective contracts.[9] In the area of copyright the costs of monitoring the use of copyright material appear to be of central importance and are of particular relevance in a situation of many protected works and many users.

Just as transactions costs define the boundary between private and collective contracting, they also define the boundary between areas in which it will be economical for collectives to operate and areas in which it will not be feasible to establish collectives. In addition the methods of operation of the collective will also be affected by transactions costs. The choice, for example, between strict copyright payment and compulsory licensing will depend on the costs associated with these forms of charging users.

This approach to the emergence of copyright collectives takes as given the desirable incentive functions of the copyright system. Although payment to creators limits the circulation of existing works, longer-run factors relating to the supply of creative works have led to copyright protection. If the assumptions underlying this protection are correct, then, in principle, users should pay for the use of copyright material whether these uses are based on traditional patterns of use or are related to new technological developments.

At this point, however, the preceding comments about transactions costs become important. For activities in which metering is inexpensive, the link between use and returns to specific creators is strong, and the copyright system retains its incentive features even when there is a movement from individual to group enforcement. However, if transactions costs lead collectives to devise payment plans that are more loosely connected to use, then the incentive and efficiency justification for copyright collectives is weakened.

A further perspective on this problem is provided by the literature on the optimal pricing of public goods.[10] This literature considers the best set of prices to charge users for a commodity with large fixed costs but low margin-

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9. This is analogous to some of the labour market literature surrounding the development of trade unions which negotiate collective contracts due, for example, to economies of scale in monitoring employer compliance with the contract. The analogy between collectives and trade unions is extended in subsequent chapters.

10. See, for example, Baumol et al. (1979).

al cost. It is assumed that the producer is operating on the downward sloping section of the average cost curve, so that setting price equal to marginal cost will not produce sufficient revenue to cover total costs.

If we assume that this output should be produced (i.e., consumers are better off with the commodity than without, even if they pay more than marginal cost), then the price must be set to cover total costs. The literature on the optimal pricing of public goods indicates that the misallocation of resources generated by the deviation away from marginal cost pricing is minimized if the fixed costs are spread over the largest feasible[11] number of users. Although there is an apparent element of fairness in spreading the burden of fixed costs, the argument is entirely in terms of efficiency. The conclusion is, again, that charging new users of copyright materials through collectives appears to be a desirable extension of copyright protection provided that the costs of monitoring use and distributing revenues are not so high as to make this alternative uneconomical.

A graphical illustration. The concept of a copyright collective is subject to graphical interpretation. The central elements of the markets for intellectual property to be portrayed are the appropriability problem and the potential gains from increasing appropriability through collectives. The problem is illustrated in Figure 4. This diagram is a slightly modified version of Figure 2, which illustrates appropriability but does not completely deal with collectives.

In Figure 4, assume that we are dealing with a particular category of copyright material. Demand for this material is divided into two categories. The first is the primary demand indicated by D_P, while the other category is referred to as the secondary demand. In terms of notation the secondary demand is D_S, while Figure 4 shows the total demand D_T, which is the sum of D_P and D_S. It is possible to directly calculate D_S by subtracting D_P from D_T.

In Figure 4, D_P represents traditional uses of copyright material for which copyright holders are compensated. D_S, by assumption, represents "new technological uses" for which copyright holders now receive no payment. To make the

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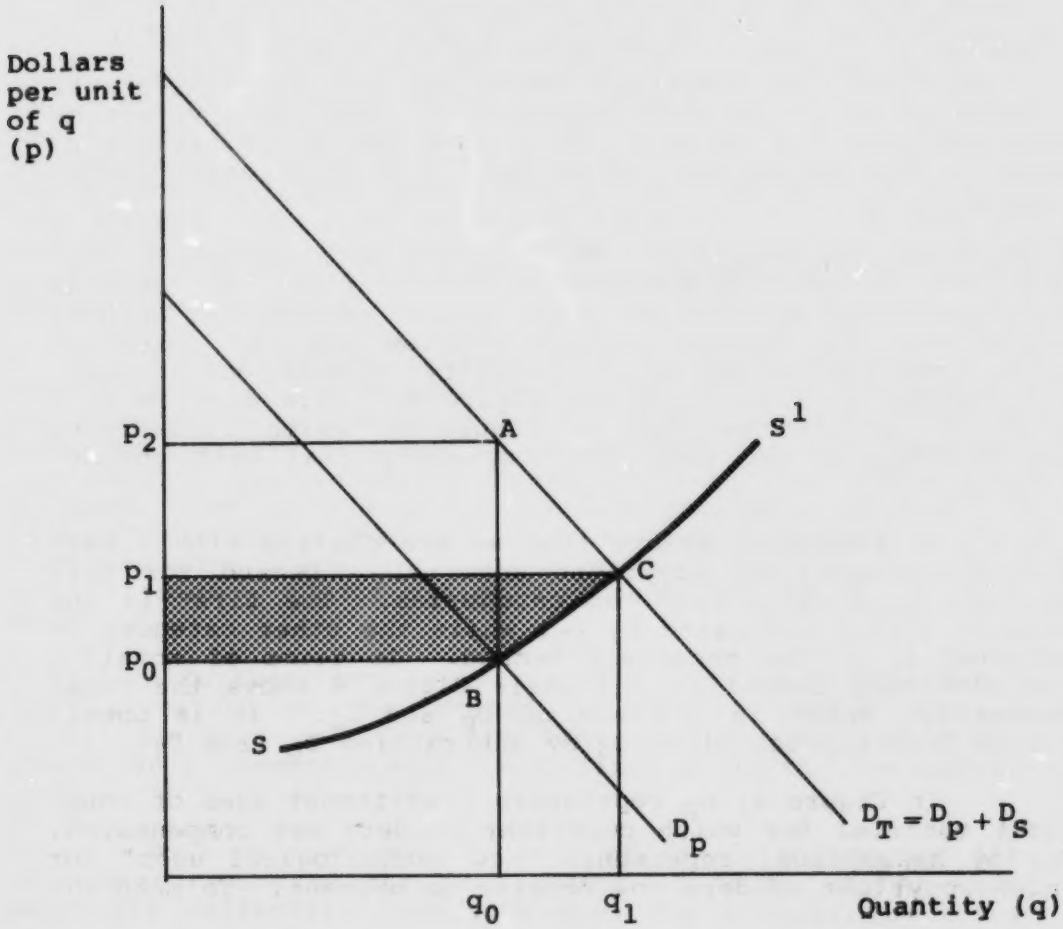
11. Feasibility is defined in terms of transactions costs. The best divergence of prices among markets will be a function of demand elasticities.

Figure 4

Collectives and Appropriability



example concrete, the commodity might be books, journals and other published material, so that D_S would represent the demand to photocopy. In the absence of appropriability problems, copyright holders would be compensated for both primary and secondary uses, and the supply curve for this output would be SS'. However, we are assuming no payment for secondary uses, so that the intersection of SS' and D_P determines output q_0 and price per unit of p_0. If the outputs used in the secondary market could be costlessly appropriated, we would move to the intersection of D_T and SS' at point C, and equilibrium price and quantity would rise to p_1 and q_1.[12]

In a property-rights context, attempts to appropriate the returns from secondary uses are simply attempts to enforce property rights. The potential gains from doing so can also be analyzed in this diagram. In the absence of a collective or some other device to increase appropriability, equilibrium remains at p_0 and q_0. At this equilibrium, there is a divergence between the value to society of a further unit of output and the marginal cost of providing it. The social value of a further unit of output is p_2, while the marginal cost is p_0. This divergence exists for all units of output between q_0 and q_1.

Figure 4 also demonstrates the extent of the incentive for producers to organize a collective to exploit secondary demand. The shaded area p_1p_0BC represents potential rent to producers that could be captured if revenues from secondary uses could be costlessly collected. The situation depicted diagrammatically illustrates the private incentives which exist to capture the returns from secondary uses.

Given the existence of these incentives, we can review possible reasons why no collectives have yet emerged outside the music business. The existence of economies of scale in monitoring and enforcement presumably means that it is not profitable for individual producers to pursue secondary users. If, under the existing property-rights regime, these costs are sufficiently low, we would expect to observe private companies or agencies formed to provide monitoring and enforcement services. In fact, the Harry Fox Agency, whose Canadian operations were taken over in 1975 by the Canadian Musical Reproduction Rights Agency, performed exactly this type of function. In other areas, however, the

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12. In this example, quantity is being measured in terms of the number of units (e.g., book titles) produced rather than in terms of use of existing titles.

secondary uses of copyright material are relatively new, and mechanisms to capture returns from these uses are still being considered by creators. As discussed elsewhere in this study, uncertainty about the legal status of collective enforcement appears to be a factor in leading creator groups to feel that a copyright revision is required prior to the launching of new collectives. In addition it is clearly possible that negotiation, monitoring and enforcement costs are so high, even for a collective, as to exceed the potential gains from trade. That is, the dollar value of these transactions costs could exceed P_1P_0BC.

As indicated in previous sections, the extent of transactions costs is of critical importance in determining the economic viability of collectives. Possible methods of holding these costs down include establishing list prices for secondary uses and collecting according to this list rather than negotiating on a case-by-case basis with users. This approach has obvious attractions for secondary users and intermediating institutions such as libraries, which are also concerned with minimizing the costs of access.

The replacement of prior negotiation and permission with a requirement for payment after the fact according to a price list economizes on transactions costs if there are no major enforcement problems in ex post collection. The existing performing rights societies deal with this problem through the Copyright Act and the Copyright Appeal Board, which approves their tariff. Their property right is made less costly to enforce given the knowledge that the courts would routinely find in their favour for infringement if users fail to pay this tariff. This subject is pursued in more detail in Chapter IV, which deals with the Copyright Tribunal.

Chapter III

THE ECONOMIC IMPACT OF COPYRIGHT COLLECTIVES

The Existing Performing Rights Societies

The existing Copyright Act has incorporated provisions dealing with collectives in the musical performing rights area since 1931. These collectives or performing rights societies are defined under section 48 of the Act as being

> in...the business of acquiring copyrights of dramatico-musical or musical works or of performing rights therein [and are required to file] lists of all dramatico-musical and musical works, in current use in respect of which such society, association or company has authority to issue or grant performing licences or to collect fees, charges or royalties....

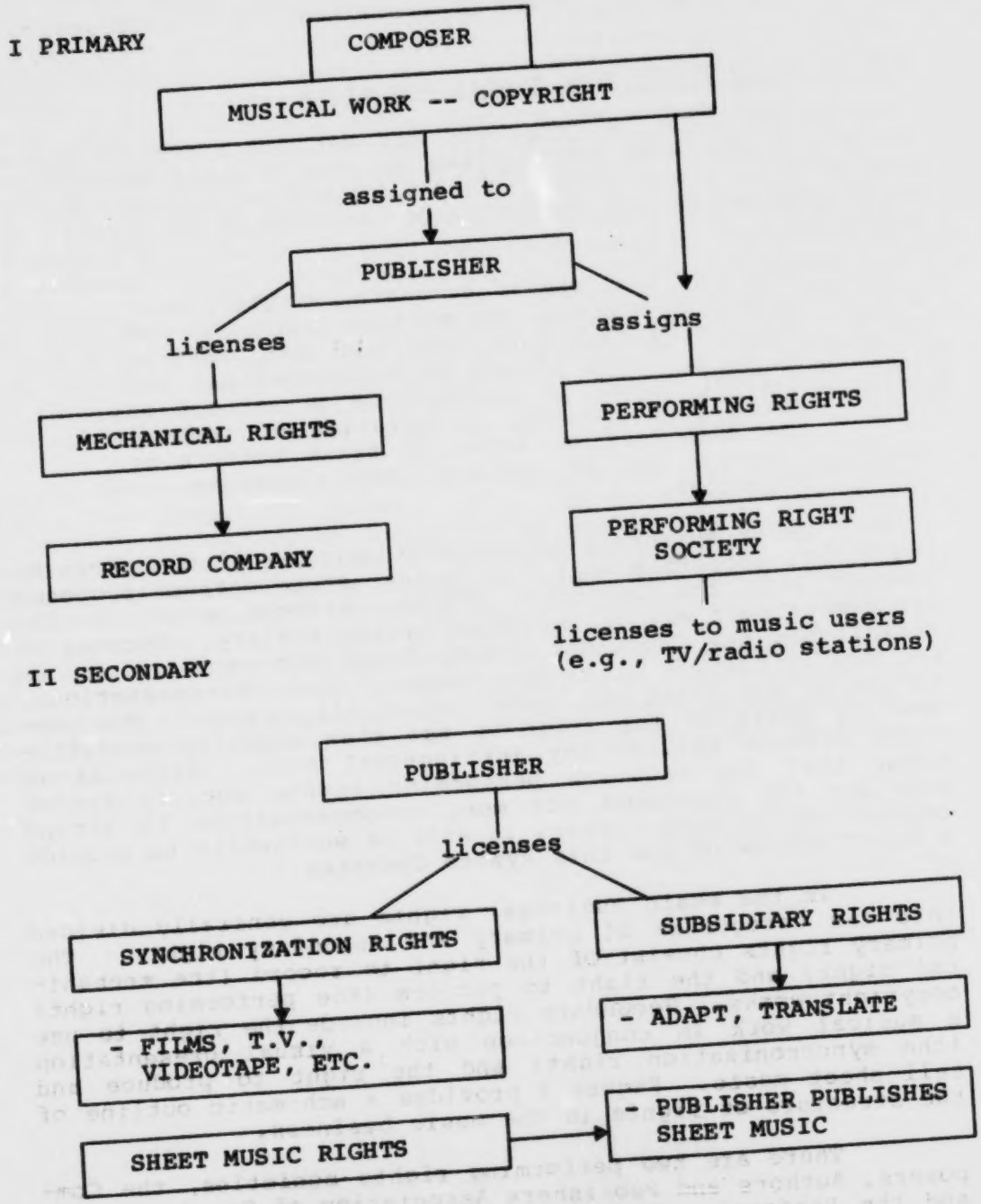
Under further provisions of section 48 the performing rights societies must file annual statements of proposed charges with the Copyright Office, without which no infringement suit may be initiated by the society. Section 50 establishes the Copyright Appeal Board and empowers it, on its own initiative or on the basis of user representations, to review and alter the submitted royalty rates. The payment by users of the approved fee then constitutes sufficient defence against any infringement suit. Since it is clear that the existing performing rights society system provides the framework for most recommendations to extend collectives to other areas, it will be worthwhile to provide a brief review of how this system operates.

In the music business, rights are generally divided into the categories of primary and secondary rights. The primary rights consist of the right to record (the mechanical right) and the right to perform (the performing right) copyright works. Secondary rights include the right to use a musical work in conjunction with a visual presentation (the synchronization right) and the right to produce and sell sheet music. Figure 5 provides a schematic outline of the structure of rights in the music business.

There are two performing rights societies, the Composers, Authors and Publishers Association of Canada (CAPAC) and the Performing Rights Organization of Canada (PROCAN).

Figure 5

A Chart of Music Rights and the Music Business



Source: Sanderson (1980), p. 385.

PROCAN was a subsidiary of Broadcast Music Incorporated (BMI-U.S.A.) until 1977. The performing rights societies are nonprofit cooperatives that collect and distribute revenues. The distribution of revenues is based on the monitoring of actual performances of protected material. It should be noted that royalties for performances of copyright music are distributed to composers and publishers only. There is no specific legal right of performers;[1] their payment is a contractual one agreed to with record producers prior to the recording of the music. There is also no performing right granted to holders of the copyright in the sound recording.[2] The tariffs established by CAPAC and PROCAN are subject to review by the Copyright Appeal Board as described above.

Payment for the public performance of musical works. Performing rights societies emerged in the early 1900s as a response by composers to the increase in public performances of copyright works. In the United States the American Society of Composers, Authors and Publishers (ASCAP) was established in 1914, and in England the Performing Right Society (PRS) was established in 1915. In Canada the Canadian Performing Right Society (CPRS) was established in 1925 and subsequently changed its name and became CAPAC. PROCAN operated as a subsidiary of BMI from 1947 until 1977.

The operation of the existing performing rights societies and the copyright works that they do or do not represent illustrate a number of issues in the area of collectives for copyright holders.[3] In general a performing rights society is a response to the problem of many users and many works. This combination makes individual administration of copyright musical works excessively expensive in comparison with the collective alternative. Performing rights societies operate throughout the world on behalf of composers and publishers of musical works, whose material may be used thousands of times daily. The system also works to the benefit of users, who are freed from the requirement of attempting to seek out copyright owners.

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1. For an analysis of this issue, see Globerman and Rothman (1981).

2. For an analysis of this issue, see Keon (1980).

3. The operation of collectives in the Province of Quebec is examined in Hollander and Pichette (1982).

The collective exercise of performing rights by composers and publishers of frequently used musical works can be contrasted with situations in which the right to perform copyright material is negotiated on an individual basis. The right to perform stage plays or operas, for example, is negotiated for the author by an agent or publisher. The relatively small number of users makes individual negotiation of the appropriate fees and royalties feasible. This concept underlies the present study. The choice between individual and collective exercise of rights is fundamentally a question of the costs associated with the relevant alternatives.

Although the operations of the performing rights societies are somewhat complex, their general functions are to license performing rights, collect fees from users for the performance of musical works, undertake litigation in cases of infringement and then distribute revenues to the composers and authors whose material is used. The major sources of revenue for the performing rights societies are the following:

- radio broadcasts;
- televison broadcasts;
- motion picture theatres;
- public concerts;
- nightclubs and cabarets;
- restaurants and taverns;
- exhibitions and fairs;
- background music systems.

The standard mechanism for charging users for the performance of musical works is the blanket licence. CAPAC and PROCAN each hold a repertoire, that is, a collection of copyrights which have been assigned to them by composers and music publishers. For an annual fee, which is generally either a fixed dollar amount or a fixed percentage of revenues, users in different categories then have the right to freely use all of the copyrights in the repertoire.[4]

Although CAPAC is somewhat larger than PROCAN (as measured by revenues -- the ranking reverses if the size standard is number of composer and publisher members), both hold large repertoires so that users will have an agreement with both societies. The rates or tariffs charged for the

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4. CAPAC and PROCAN have reciprocal contracts with societies throughout the world and therefore administer an international repertoire.

use of the repertoire are adjusted annually on the basis of proposals made by CAPAC and PROCAN to the Copyright Appeal Board. Users can file objections to a proposed tariff and can appear before the Board to present their case. The rate accepted by the Copyright Appeal Board then becomes the tariff that must be paid by users if they are not to be subject to a suit for infringement. In Table 1 the revenues and administrative expenses of CAPAC for 1976-80 are displayed.[5]

Table 1

CAPAC Revenues and Overhead, 1976-1980

Year	Revenues	Overhead	Overhead ratio (%)
1976	$12 479 288	$1 634 787	13.1
1977	13 427 861	1 799 333	13.4
1978	14 375 343	2 055 674	14.3
1979	17 101 694	2 308 729	13.5
1980	19 315 301	2 723 457	14.1

Source: CAPAC (1980).

The second function of CAPAC and PROCAN is to distribute the revenues collected from these different sources to the appropriate composers and publishers. It is at this point that further trade-offs must be made. Note that a trade-off has already been made on the revenue side. The blanket licence allows users equal access to all elements of the repertoire even though the value of each element will differ. However, a system of strict copyright or individual negotiation would not be desired by either party to the transaction, because of cost.

If payments are not strictly tied to the value of the individual protected works, it would still be technically possible to distribute revenues entirely on the basis of use. This, however, would be an extremely costly distribution system, and, as a result, the performing rights societies have devised distribution formulae that combine direct counts of use in some areas with a sampling procedure for

5. PROCAN has not yet published comparable figures.

other areas. Distribution is made not on the basis of an inclusive census of use but on the basis of estimates of use derived in part from sampling.

To clarify how this procedure works, the CAPAC distribution system is outlined below (PROCAN also maintains a similar computer-based logging system). Revenue distribution is undertaken for each of the following four categories:

- broadcast, general and concert hall;
- television;
- motion pictures;
- foreign.

Consider the first distribution category as an example. The major source of revenue in this pool comes from radio broadcasting. The Canadian Broadcasting Corporation (CBC) provides a constant stream of data to CAPAC on all musical works used. Each commercial AM and FM radio station provides a record to CAPAC of all material used for two weeks of each year. This rotating panel of radio users provides a further continuing inflow of data on the performance of musical works. The material used by concert halls is recorded on the basis of concert programs submitted by licensees to CAPAC.

The basic unit in this process is the song title. At the end of the distribution period, each song title has a number of points indicating how often it was measured in the preceding process. Revenue is apportioned to each song title on the basis of the fraction of total plays accounted for by that title and is then distributed equally between the music publisher and the composer of the song. (For example, if the total pool were $1 000 and there were 100 song counts, 10 of which were for a particular title, the composer and publisher would then share $100, i.e., 10/100 of $1 000.)

In this system there are three categories of monitoring the performance of music:

- complete census of use;
- 2 weeks in 52 sample;
- no direct measurement (nightclubs, taverns, etc.).

This system is a reflection of the costs of more accurate monitoring of use. Although there would be benefits from more accurate measurement of the use of musical works, the members of CAPAC appear to agree that the costs

of more accuracy would swamp the benefits. For popular music in particular, there will be a strong similarity between the music played on different stations. In addition the sample of use is likely to bear some relationship to music used in the unmonitored category. The system appears to be generally acceptable to those involved because the regularity of music played makes the sampling procedures fairly reliable. Suggestions to apply this type of sampling procedure to other areas in which new collectives might operate must take into account the costs of designing an equally reliable system in these areas where the patterns of use may be less regular.

Mechanical Rights

The administration of the right to reproduce musical works in Canada provides a further illustration of the nature of the choice between private and collective administration of rights. It should be stressed at the outset that the performing right and the reproduction right are separate rights which create separate sources of income deriving from different uses of a copyright musical work.

The reproduction rights include the right to reproduce musical works in records, in film and television programs, in the form of sheet music and in other devices such as videotapes and videodiscs.[6] It is referred to as the mechanical right in the recording industry, the synchronization right when copyright music is used by the television and film industries and as the sheet music right in the field of music publishing.

The Canadian Musical Reproduction Rights Agency (CMRRA) currently represents over 6 000 Canadian and U.S. publishing companies and accounts for approximately 75 per cent of the music recorded in Canada (CMRRA, 1981). As its major functions, the CMRRA

- licenses musical works to record companies in Canada under the compulsory licensing provisions of sections 19(1) and 19(5) of the Copyright Act;

- licenses musical works to the film and television industries in Canada;

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6. For a discussion of mechanical rights, see Berry (1981).

- collects royalties from licensees, undertakes infringement actions and conducts regular audits of record production firms.

There are substantial differences between the operations of CMRRA and of the performing rights societies. Both CAPAC and PROCAN operate on the basis of an assignment of rights, whereas CMRRA simply acts as an agent for rights holders. The performing rights societies deal with many more users of copyright material and issue a blanket licence allowing users access to all the titles in their repertoire. In the recording industry, there are fewer users and CMRRA collects from record firms for each use of a copyright work. Under the compulsory licence provisions of the Copyright Act, the current payment is two cents per song on each record. In 1980-81, CMRRA collected approximately $7 million for the use of musical works and charged a fixed fee of 5 per cent for administering mechanical rights and 10 per cent for synchronization rights (see Berry, 1981).

Although CMRRA is not specifically referred to in the Copyright Act, it is clear that the pressures which led to its formation are similar to those which led to the formation of CAPAC and PROCAN. The alternative to CMRRA[7] is for music publishers to deal individually with record companies, which would entail costly overlapping organizations. The unique feature of CMRRA is, however, its retention of what can be referred to as a system of strict copyright: all users are monitored and paid for with no sampling procedure employed.

In terms of numbers and complexity of administration, the number of song titles represented by CMRRA is very large, but the number of users is smaller than in the case of CAPAC and PROCAN. The structure of transactions costs in this area has led to a collectively administered system but one in which it is possible to link every dollar of payment to the use of a specific song title. The similarities and differences between the performing rights societies and CMRRA reflect differences in transactions costs, and these similarities and differences have definite implications for the structure of whatever new collectives may emerge in the copyright field.

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7. The U.S. equivalent of CMRRA is the Harry Fox Agency in New York. CMRRA was established in 1975 by the Canadian Music Publishers Association to take over the operations of the Harry Fox Agency in Canada.

The Potential for New Collectives

In its 1971 Report on Intellectual and Industrial Property, the Economic Council of Canada commented on the apparent inevitability of the development of copyright collectives. New technology would lead to an extension of the performing rights society concept to new areas where collectives would collect and distribute royalties from the use of copyright material. In the ensuing ten years the forward pace of technology has continued, but we have not seen much movement in the direction of collectives (although more people are now aware of the concept than was the case in 1971). As an introduction to this section, possible reasons why copyright owners have not yet established new collectives are briefly reviewed.

In discussions with groups that might be expected to initiate a copyright collective, two reasons emerged for the failure to put an operating collective in place. First, there are serious concerns about the legal status of new collectives under existing legislation. In particular the Combines Investigation Act is regarded as a barrier to any collective not granted exemptions under the Copyright Act. Performing rights societies are explicitly recognized under the Copyright Act, while other copyright collectives are not. CMRRA operates as a collective and is not referred to in the Copyright Act, but its primary business consists of collecting the two-cent-per-song tariff mentioned in the compulsory licence section of the Act. For this reason the Combines Act does not appear to apply to this new collective agency.

The other reason for not simply pressing ahead is uncertainty about the costs of operating new collectives and about the potential revenues available to them. In general these are questions of business risk, which face any new enterprise and should not be a particular problem. However, there may be some interaction of this effect with the first factor such that we cannot simply conclude that the absence of collectives implies that costs exceed benefits.

In this section a number of areas in which copyright collectives might operate are considered. Consideration of a particular area in this section should not be regarded as a statement that the benefits of such a collective necessarily outweigh the costs. This section is, rather, an attempt to indicate how collectives might operate in particular areas and the problems that must be dealt with. General statements about the merits of collectives are reserved for subsequent sections.

Photocopying. There appears to be substantial agreement that the volume of photocopying has markedly increased in the recent past. There is considerably less agreement on the impact of this form of reproduction on copyright owners and on the best response to this increased quantity of copying.

Photocopying has been discussed in a number of Canadian studies, including the Economic Council of Canada (1971), Keyes and Brunet (1977), Magnusson and Nabhan (1982) and Liebowitz (1981). To differing extents the first three of these studies were sympathetic with the general notion of a photocopying collective to channel compensation to copyright holders for this form of reproduction of their works. The study by Liebowitz did not favour the use of collectives in this area. Instead, it suggested an extension of existing forms of price discrimination as a method through which copyright owners could receive compensation for works that have a high value due to their use for subsequent copying.

The view that a system of collective administration should be a policy goal is clearly spelled out in the following:

> Photocopies are but one form of reproduction. Just as they negotiate agreements to determine the conditions under which their works will be used according to traditional modes of reproduction, authors and copyright owners should be able to exercise the same prerogatives when reproduction is performed in new ways (reprography). In this case, given the size of the user public and the phenomenal quantity of works used; the most practical solution would be the establishment of collective agreements providing comprehensive authorization for the use of works. (Magnusson and Nabhan, 1982, p. 67)

Keyes and Brunet also explicitly recommended that collectives should operate in this field. They stated that much current photocopying does constitute infringement, the fair dealing defence notwithstanding, and they did not wish to see any extension of fair dealing to authorize current levels of copying. They further argued that a collective in the field of photocopying should be subject to regulation by a tribunal.

1. The operation of a photocopying collective. Photocopying is now undertaken on a widespread basis and clearly illus-

trates the copyright issues raised by the development of new technology. For this reason it is worthwhile to explore in some detail the problems associated with a photocopying collective and some possible alternatives to a collective.

Publishers and authors argue strongly that much current photocopying is not only illegal, but has a negative economic impact on creators and on the future output of creative works. They feel that some method must be devised that will both allow convenient photocopying and channel payment to copyright owners for this use of their property.

Previous studies in this area have concentrated on library copying and particularly on copying in postsecondary institutions. Publishers in Canada, however, appear to regard primary and secondary schools as more important sources of infringement through extended single copying and multiple copying. The practice of making copies of text- and workbooks in educational institutions because the book budget is depleted and the photocopy budget is not, is frequently cited as the type of use for which publishers and authors should be compensated.

The Canadian Copyright Institute (CCI) has argued that it would be feasible to establish a photocopying collective structured in a manner that is similar to the performing rights societies (CCI, 1980). Like the performing rights societies, the photocopying collective would collect fees from users and would remit these revenues less overhead to copyright owners. Unlike CAPAC and PROCAN, no sampling would be done, since the range of materials copied is believed to be wider, with the result that a sample with acceptable statistical validity would be excessively costly.

To minimize these costs and because the making of single copies of a limited part of a work is not believed to substantially affect the economic viability of a publication, the CCI proposal would have a collective charge only for multiple copying and extended copying of a single work. The collective would not levy charges for casual copying defined as a single copy which constitutes a small fraction of the total work. In its proposal, CCI uses 2 or 3 per cent as an example of a small fraction of a work. Thus for a 200-page book a single copy of 4 to 6 pages would not require payment, while multiple or more extensive copying would require payment.

The CCI model of a photocopying collective would essentially work on the basis of a compulsory licence.[8] Users would be able to copy freely without prior permission but would be required to record what was copied and pay some established fee per page. The collective would then distribute these funds to copyright holders on the basis of the records of use. The right to copy without prior approval of the copyright owner under this scheme would not include making copies of an entire work or making multiple copies in excess of some number such as 50. Publishers argue strongly that copying beyond these limits is essentially a form of publishing and should be undertaken only on the basis of prior contract with the copyright holder. These limits, therefore, define the line between collective and private administration of rights.

A complete assessment of the potential viability of this type of collective would require substantial information on both costs and revenues. The specific proposal of CCI does, however, raise some questions about alternative approaches to the operation of the collective and about the costs associated with these alternatives.

The first issue deals with sampling versus the maintenance of records as in the CCI model. Library representatives have generally supported the concept of collectives but are concerned with requirements of detailed record keeping. A sampling procedure would reduce the required quantity of records but is of questionable validity given the diversity of material copied and is itself expensive. A poor sampling procedure weakens the link between use and payment to copyright holders and moves away from the underlying incentive rationale for collectives.

A significant element of the model described above is the emphasis given to nonlibrary copying of copyright material. Much of the commentary on the extent of systematic copying and on the potential flow of dollars out of Canada under a collective system has been based on surveys of copying in university libraries. The collective described by CCI would be concerned with libraries and post-secondary educational institutions but appears designed to collect substantial revenues from other educational institutions. This means that some of the estimates in other studies on the percentage of revenues flowing out of Canada

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8. In this type of scheme, private as well as public libraries would pay the required fee. The mechanics of the collection system to deal with private (e.g., corporate) libraries are beyond the scope of this paper.

are too high, since the vast majority of material copied in elementary and secondary schools is Canadian. In addition, some estimates of the viability of a photocopying collective have been based on the presumption that library copying would be the sole source of revenue. It is conceivable that payments made by educational institutions could provide a solid financial base for the collective.[9]

2. Measures of the extent and impact of photocopying. The feasibility of a photocopying collective and its desirability from an economic point of view depend crucially on the costs of operating a collective and on the financial impact of uncompensated use on publishers. Such data do not exist, but it is possible to provide a brief survey of some of the published data on photocopying and to provide an interpretation of these data in light of the framework for analyzing collectives that is being employed in this study.

The data considered here provide some evidence about the quantity of photocopying, the nature and origin of material copied and about journal subscriptions.[10] The major Canadian study on photocopying was undertaken by Stuart-Stubbs (1971) for the Canadian Library Association. This survey covered both library-staff copying and copying at coin-operated machines in 41 university libraries. No attempt was made to measure the extent of copying at other machines in individual departments or elsewhere at these universities. The Stuart-Stubbs study indicated that the large majority of materials copied were not of Canadian origin. These data are shown in Table 2.

Liebowitz in his analysis notes that 72 per cent of the material copied was non-Canadian and draws the following conclusion:

> This result clearly implies a deficit position for the balance of payments, although the dollar value of this deficit is

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9. This paper does not deal with the remedies available to a photocopying collective. Implicit, however, in the type of collective discussed here is the assumption that workable statutory remedies can be devised.

10. All of the evidence discussed here is summarized in detail in Liebowitz (1981). The interested reader is referred to this source for more complete descriptions and a somewhat different interpretation of the data.

Table 2

National Origin of All Published Material Copied

Canada	28%
U.S.	47
U.K.	11
France	3
Other	11

Source: Stuart-Stubbs (1971), pp. 28-29. This table is also reproduced in Liebowitz (1981), p. 40.

> unknown. It is clear that the impact of photocopying on the Canadian publishing industry is much smaller than might be thought if one looked only at the amount of photocopying. (1981, p. 40)

In the context of the data provided by Stuart-Stubbs, this conclusion is certainly correct. However, the survey conducted by Stuart-Stubbs covered only photocopying in university libraries. Substantial quantities of copying are done outside university libraries (approximately 80 per cent of university photocopy machines are outside libraries), and, in any event, it is not possible to assess the impact on publishers and authors by looking only at university copying. If copying in educational institutions at lower levels were included, the impact on publishers and authors would likely be greater and the proportion of Canadian to non-Canadian material copied would likely be reversed. What is needed to resolve some of the ambiguity in this area is a more complete study of the extent of educational copying in Canada.

The issue of the dollar outflow to non-Canadian copyright holders is an important element of the copyright question. Stuart-Stubbs indicated that if payments were required for secondary uses, approximately 72 per cent would go to non-Canadians from copying in university libraries. If we add to this potential revenues from copying in elemen-

tary and postsecondary institutions with a greater intensity of Canadian materials copied, we would likely then have a revised total of 50 per cent going to Canadians and non-Canadians. This is approximately the ratio of payments to Canadians and non-Canadians reported by CAPAC, and the strongly held view of CAPAC is that these payments play an important role in supporting its organization. The costs of running CAPAC are covered through an overhead charge of approximately 14 per cent prior to the distribution of revenues to members. Non-Canadian members therefore contribute approximately half of the total costs of running this organization.

In the 37 university libraries participating in the Stuart-Stubbs study, the total number of copies in 1971 was 14 725 946 (1971, p. 26). Although the majority of machines are outside libraries, it is reasonable to assume that much of the copying outside libraries is of noncopyright material, so that the total number of copies made in these universities relevant for a study of copyright might be 30 million. To provide a numerical example, assume that copying at other levels brings the total to 100 million copies in 1971.[11] If we further assume that copying has been growing at an annual rate of 7 per cent, then this total would have doubled in the intervening ten years to 200 million by 1981. The fraction of this total that would be subject to copyright payment to a collective is not clear, but if the fraction were one and if we assume a royalty of one cent per page, then the maximum revenues of the collective would be approximately $2 million. Since its actual fraction would be less than one, the total revenue available to this collective and particularly to Canadian members is not likely to be overwhelmingly large.[12]

3. Experience outside Canada. Chapter II indicated the crucial role played by transactions costs in determining the desirability of collectives. It would, therefore, be useful to know something about what the costs of operating a photocopying collective would be. Unfortunately, the data on this issue are very limited. The problem of making even rough estimates of what these costs might be is made more difficult because a collective could choose from a number of

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11. This figure is not likely to be very precise. There are no published data for Canada on copying at government, public and other libraries.

12. For an assessment of the impact of photocopying on journal subscriptions, see Liebowitz (1981).

different possible methods of operation, and this choice would have a major impact on the costs of operating the collective. In addition, statutory provisions such as the fair dealing defence will have an impact on the nature and therefore the costs of operating a collective.

A system in which users are granted a blanket licence, with the tariff being some fraction of the total quantity of copying, would be the cheapest system to operate. The major costs would be associated with sampling of use for distribution purposes. This is the performing rights society model, and the limitations of this approach for photocopying have already been discussed.

The CCI proposal involves the creation of paper records for all copying deemed to substitute for the outputs of authors and publishers. It would appear to be significantly more expensive under such a system to have a price list than a uniform per page fee. The experience of the Copyright Clearance Center (CCC) in the United States provides a useful perspective on the costs associated with the different aspects of operating a collective.

CCC is a voluntary copyright clearing house designed to concentrate initially on technical-scientific-medical journals. Publishers and users (generally libraries) register with CCC. The main element of the operation of CCC is a code appearing on the first page of each article that identifies the publisher and the price per copy. The code provides the information that is required to distribute the royalties among participating publishers. Although CCC charges 25 cents per photocopy for the clearing house services provided, the volume of reported copying under the voluntary reporting system has not yet been large enough to reach the break-even point. There is no doubt that the U.S. experience with CCC does not present an optimistic picture about a system of voluntary payments. Enforcement is costly but from the CCC experience, it appears to be a necessary cost of operating this type of business. In addition it should be pointed out that CCC deals only with libraries and does not undertake collection from educational users, as would be the case in the model proposed by the Canadian Copyright Institute.

The question of photocopying and the feasibility of creating a system that would compensate authors for the use of their copyright material has attracted attention in a number of countries. The following does not provide a complete survey of the alternative systems that have been proposed but instead selects two recent reports, one of which

has recently led to new legislation, to highlight the contrasting positions that can emerge following substantial enquiries.

In Australia the Franki Committee on Reprographic Reproduction reported in 1976, while in Great Britain the Committee to Consider the Law on Copyright and Designs (Whitford Committee) reported in 1977. The former dealt exclusively with reprography while the latter considered reprography within the context of the entire copyright system. In 1980 Australia enacted new copyright provisions dealing with reprography, which followed the recommendations of the Franki Committee quite closely.[13]

The Franki Committee proposals on photocopying bear a relationship to the arrangements proposed by the Canadian Copyright Institute with the exception of copying by individuals, which would generally proceed without compensation for copyright holders. In the view of the Franki Committee the costs of providing sufficiently accurate records of individual copying would exceed royalties and the diversity of materials copied meant that a satisfactory system of sampling could not be devised. The Franki Committee therefore opposed the licensing of photocopying machines or levying taxes on the machines because of the cost of royalty distribution.

The recommendations of the Franki Committee did provide for compensation to copyright holders for multiple copying in educational institutions, with insubstantial parts of works defined as the greater of two pages or 1 per cent being the only exception. In the Franki Committee report it was proposed that libraries be allowed limited copying (six copies per work) without payment, but the 1980 legislation dropped this, with the result that educational institutions and libraries must keep records of copying and must pay copyright holders.

The Whitford Committee recommendations stand in contrast to the system recently enacted in Australia. The Australian system has a broad fair dealing defence for individuals, but, beyond this, payment to copyright holders is calculated on the basis of records of multiple copying. The system includes penalties for failures to maintain adequate records. The Whitford Committee, on the other hand, pro-

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13. For an extended discussion of photocopying and copyright from an Australian perspective, see Fielding (1981).

posed a system of blanket licences.[14] The licence fee would allow multiple copying with some limit on numbers, again to prevent copying from being a substitute for publishing. All machines would be licensed and all copyright holders wishing compensation would be required to belong to collectives. The number of collectives and the licence fee would be regulated by a copyright tribunal. The licence fees would be distributed by the collective on the basis of sampling, although the Whitford Committee explicitly proposed rate reductions for users who are able to supply the collective with information on what material is actually copied.

The brief review of the Whitford proposals in Great Britain and the Franki proposals, which formed the basis for legislation enacted in Australia in 1980, demonstrates the problems of trying to create a viable system to deal with reprography. The Australian system can be regarded as an experiment that will provide extremely useful data on the costs of maintaining records of multiple copying. The absence of this type of data is the central difficulty in an attempt to provide recommendations on the subject of collectives.

Collectives in other areas. The area of photocopying has received substantial attention and has been the subject of a wide variety of proposals for collectively extending copyright enforcement to the secondary market. For this reason, alternative systems and the problems associated with them have been discussed at some length. However, there are other areas as well where rights holders feel that they can be adequately compensated for new uses only through collective action. This raises the possibility of collectives in the following areas:

- home taping: audio and video tapes, discs and records;
- films and television programs;
- performing right for sound recordings;
- performers' copyright.

The above list is for illustrative purposes and should not be regarded as necessarily inclusive. It should also be pointed out that most elements of the above list are controversial and would require alterations in the Copyright

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14. Although Keyes and Brunet do not spell out their recommendations in detail, their system appears similar to that proposed by the Whitford Committee.

Act in order for copyright holders to operate collectively. The list includes the suggestions of other studies and its inclusion here should not be interpreted as an endorsement of particular collectives.

1. Home taping: audio and video tapes, discs and records. The first category deals with the noncommercial taping of copyright material generally referred to as "home taping."[15] Surveys of purchasers and users of audio equipment and blank tapes have indicated a significant degree of taping of copyright material, and the recording industry, in particular, has argued that this reduces the anticipated revenue of record producers and endangers the future supply of recorded music. Table 3 provides some illustrative data on home taping. Even if we were to assume that all instances of home taping did involve infringement under the law, it is clear that normal enforcement procedures simply will not operate effectively in this area. This situation has led copyright holders in a number of countries to propose the establishment of a levy on tapes, recording equipment (a machine levy) or both. Germany, for example, has had a machine levy since 1965 which is a percentage of the value of the equipment, and this has also been proposed for tapes.

According to proposals that have been prepared on this topic, a collective would operate to collect and distribute the proceeds of the levy on tapes and machines. If, for example, a statutory percentage levy were established, the collective would act in a manner analogous to CMRRA in collecting this fee from producers and importers and verifying the accuracy of data on sales. The distribution of revenue is clearly a problem, since we have no data on what is being taped. Proposals in this area include the use of data from the performing rights societies (CAPAC and PROCAN) on what is being played to estimate what is being taped. The distribution of revenues for a song title among producers, publishers and composers would be the subject of negotiation and contract among these groups. Proponents of this type of scheme for compensating copyright holders refer to the tape and machine payments as a levy rather than a tax and argue that the system can be administered on a private basis.

The possible implementation of a system of remuneration for copyright holders through tape and machine levies

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15. The issue of home taping is also dealt with by Keon (1982) and Magnusson and Nabhan (1982).

Table 3

Incidence of Having Taped at Least One of Item Type in Past Year Based on Respondents Who Taped Music on Cassette Tape Recorder[a]

	Region						Age		
	Total	Atlantic	Quebec	Ontario	Prairies	B.C.	16-29	30-49	50 & over
Total who taped music	599	50	135	245	101	68	292	225	72
All or part of own record	416 (69.4)[b]	32 (64.0)	79 (58.5)	172 (70.2)	74 (73.3)	59 (86.8)	221 (75.7)	146 (64.9)	44 (61.1)
All or part of borrowed record	333 (55.6)	22 (44.0)	67 (49.6)	143 (58.4)	57 (56.4)	44 (64.7)	187 (64.0)	114 (50.7)	28 (38.9)
All or part of borrowed tape	99 (16.5)	8 (16.0)	10 (7.4)	50 (20.4)	18 (17.8)	13 (19.1)	48 (16.4)	37 (16.4)	13 (18.1)
Radio program/music	334 (55.8)	28 (56.0)	79 (58.5)	151 (61.6)	42 (41.6)	34 (50.0)	168 (57.5)	122 (54.2)	39 (54.2)
Live concert	78 (13.0)	5 (10.0)	12 (8.9)	51 (20.8)	8 (7.9)	2 (2.9)	34 (11.6)	29 (12.9)	14 (19.4)
None	11 (1.8)	1 (2.0)	2 (1.5)	4 (1.6)	4 (4.0)	0 (0.0)	0 (0.0)	6 (2.7)	4 (5.6)
Don't know	0	0	0	0	0	0	0	0	0
Not stated	3 (0.5)	1 (2.0)	1 (0.7)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	3 (1.3)	0 (0.0)

Source: Gallup Poll of Canada (1980), question 19A. The sample size for this survey was 2 095 individuals.

[a]The data have been exactly reproduced from the Gallup study, including a few slight discrepancies in the totals.

[b]Figures in parentheses are percentages.

is currently being considered by governments in a variety of countries. In addition the members of the International Union for the Protection of Literary and Artistic Works (Berne Union) and the members of the Universal Copyright Convention (UCC) have investigated this area in some detail. To date, however, there has not been widespread legislative adoption of this approach. A more detailed consideration of the impact of a collective in this area would benefit substantially from information on how the German system operates and on the extent of the relationship between music played (and monitored by CAPAC and PROCAN) and music taped. The organizations throughout the world who have actively pursued this issue (primarily recording industry associations) argue that similar problems requiring a related form of collective action are emerging with the unauthorized copying of video-cassettes and videodiscs.

2. Films and television programs. A further area of continuing dispute in the copyright field involves the copyright obligations of cable television systems. This issue has been studied at some length in the 1971 Report of the Economic Council of Canada (pp. 175-77), in the 1977 study prepared by Keyes and Brunet (pp. 130-43) and in the recent study by Liebowitz (1980). In terms of the present study, an alteration of the Copyright Act creating a copyright liability for cable systems would immediately raise the possibility of a collective operating to enforce some of these new rights in addition to whatever action might then be undertaken by the existing performing rights societies.

Under the existing Copyright Act as interpreted by the courts in 1954, the provision of a television signal via cable is not defined as "broadcasting," and cable systems are not, therefore, required to pay copyright royalties.[16] Cable systems are generally defined as providing a "rediffusion" of what can be either a local or a distant signal. Original cable system programming is then referred to as diffusion. Although the entire area of the future copyright obligations of cable systems is contentious, the area of maximum disagreement involves rediffusion of distant signals.

The extent of disagreement on this issue is evident in the recommendations of the three studies identified above. The Economic Council of Canada felt that the poten-

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16. The specific case in which this was decided is Canadian Admiral Corp. v. Rediffusion et al., [1954] Ex. C.R. 382.

tial for payment to copyright holders existed through greater payments by advertisers for signals that are being extended to more viewers via cable. This system protects copyright holders as long as cable companies do not delete or replace commercials from distant signals and as long as the initial signal originates from a commercial network that carries advertising. The first of these two conditions is now violated in Canada, although not, it should be pointed out, as a result of decisions made by cable operators.[17] The Economic Council indicated that in such circumstances, it might be appropriate to require cable systems to make copyright payments.

In contrast to the position of the Economic Council, the 1977 report by Keyes and Brunet recommends a copyright payment obligation for cable systems for both diffusion and rediffusion of Canadian broadcasts. The proposals of Keyes and Brunet raise a variety of issues relating to Canada's international copyright obligation, issues that are beyond the scope of the present study.

The most recent study of copyright and cable television was conducted by Liebowitz. The Liebowitz position is related to that of the Economic Council and is based on the extent of compensation to copyright holders that is implicit in current payments by advertisers to broadcasters. The argument is that when a cable system picks up a distant signal, the increased audience size makes the program more attractive to advertisers, and copyright holders will share in these revenues through their negotiations with the original broadcaster. There has been a continuing dispute about the effectiveness of this mechanism because, for example, advertisers are said to regard the distant viewers as being of less value to them than local viewers. Liebowitz argues that a number of factors will affect the extent of advertising revenue, but that, as an empirical matter, the existence of cable appears on balance to increase advertising revenues. Liebowitz concludes that the evidence of this increased pool of advertising revenue means that there is no necessity for establishing a property right that would be the source of direct payments by cable systems to copyright holders.

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17. Canadian Radio-Television Commission (CRTC) regulations allow broadcasters to require cable companies to replace distant signals with local signals, including commercials.

It is difficult to disagree with the general contention by Liebowitz that market forces are operating through the impact of advertising revenues and copyright holders are receiving some compensation. It is less clear, however, that this is necessarily the best system for compensating copyright holders when viewed in an overall economic perspective. Consider again the relationship between efficiency and property rights as discussed in Chapter II under The Collective Exercise of Property Rights. In this section it was argued that economic agents will, through contractual relationships, always enter into agreements to minimize the dissipation of surplus given existing property rights. The system of indirect compensation for copyright holders through advertising revenues can be regarded as an example of such contractual relationships. However, it is possible that more detailed contractual relationships based on a property right of copyright holders relating to cable use of copyright material could preserve even more surplus. Under the existing law, for example, there is no property right to serve as a basis for contracts between broadcasters and cable systems; we observe only agreements, the returns from which can be appropriated by way of advertising revenues.

This is not to say that copyright payment by cable systems is necessarily desirable. We again have no data on the costs of alternative methods of coordinating transactions among copyright holders, broadcasters and cable systems. The above arguments do, however, raise the possibility that copyright payments by cable systems may be desirable. Thus we may proceed to consider what collective or collectives might operate under such a regime.

The legislation of a copyright liability for cable systems would be of immediate interest to the existing performing rights societies and would almost certainly occasion the entry of a multinational film and television collective into Canada. This area has been the subject of substantial concern to copyright holders, particularly in Europe, where the distant signal problem includes cable companies in one country picking up and rediffusing signals from other countries. The response to this situation has been the establishment of Agicoa,[18] which is an international collective formed in 1981 to collectively enforce property rights related to the use by cable systems of motion pictures and television programs. Agicoa is established along the lines of the performing rights societies: it is a nonprofit organization that remits copyright payments to members on the

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18. See Variety, December 23, 1981, p. 1.

basis of measured use after the deduction of the costs of administering the organization This organization announced soon after its inception that it intends to begin negotiating with cable systems in Europe. Founding members of the organization included representatives for the United States, Great Britain, Belgium, France and Italy. The underlying reason for the formation of this organization is the increasing costliness of individual negotiation as the extent of cable system rediffusion increases in countries where cable copyright obligations exist.

In terms of the technical problems involved and the costs of operating a collective to negotiate with cable systems, there appear to be few difficulties. Unlike photocopying, where the costs of operating a collective appear to be relatively high, a collective in the cable area appears to have the potential to operate at a low cost and to accurately relate copyright royalty payments to the use of copyright material. The collective would operate through a computer-based registry of film titles and rights holders in each film. One scenario would be to use the computer program used to produce the various editions of TV Guide to measure the rediffusion of copyright works via cable systems. The title registry program and the use program would be run together to provide the data necessary for the distribution of revenues collected. If we refer simply to the operation of the collective and not to the underlying question of cable obligations, we see that, in terms of efficiency of operation and maintenance of the basic incentive function of the copyright system, a collective in the cable area scores quite highly.

One basic concern in this area, however, relates to the flow of funds to non-Canadians that might result from the operation of a collective to deal with cable systems. Although an increasing number of films have been produced in Canada in recent years, it remains the case that the collective described above would remit much of its revenues to non-Canadians. However, the entire question of Canada's best strategy in this area lies beyond the scope of this paper.

The collective described here can be briefly contrasted with the system that has emerged under the new Copyright Act in the United States. Under this Act, cable television systems do have a liability to copyright holders, but this obligation is satisfied through payment of fees determined by the conditions of a compulsory licence. The revised Act established the Copyright Royalty Tribunal to review cable royalty rates and to distribute royalty revenues

to copyright holders. This system of compulsory licensing was chosen in preference to strict copyright liability as a result of the perceived high costs of negotiating individual agreements among copyright holders and cable systems. The compulsory licensing requirements have been the subject of substantial criticism by Besen et al. (1978), who argue that compulsory licensing will, in fact, lead to even greater problems as the importation of distinct signals increases. They conclude that the royalty fees bear little relationship to market prices, are inflexible even with the proposed revision process and will not provide sufficient incentives for the production of programs valued by audiences at more than their cost of production. They favour instead a system of strict copyright payments.

The method of royalty distribution under the revised U.S. law demonstrates the problems associated with loosely defined property rights and provides a clear example of the kind of system that, from the perspective of this study, should be avoided in Canada. There is room for legitimate debate on compulsory licensing versus strict copyright payment, since the choice between the two depends on transactions costs that are difficult to measure. However, given the revenue inflow, the U.S. system for distributing royalties seems destined for inefficiency and dissipation of much of the surplus associated with the activity.

In principle, royalties should be distributed on the basis of the value of copyright materials to users. Under the new U.S. law, however, copyright holders wishing compensation from the pool of funds must file a claim annually. Disputes over claims must be resolved by the Tribunal, a process that in large part will involve lobbying activity, presentation and evaluation of competitive evidence, and other activities, all of which are costly. The less specific the statutory rights to make a claim on this pool, the greater will be the value of resources that are used in a wasteful struggle to establish property rights. Many commentators[19] have suggested that a copyright tribunal must accompany whatever collectives are established in Canada. The American experience provides a strong indication of precisely how such a tribunal ought not to operate.

This discussion has provided a review of the potential for a copyright collective to operate in the cable television area. The first requirement for such a collec-

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19. See, for example, Keyes and Brunet (1977), pp. 214-22.

tive would be the alteration of the Copyright Act to provide a copyright obligation for cable systems, which does not now exist. It was pointed out that this is an extremely contentious issue and has not yet been resolved. If we step beyond that dispute and focus on collectives, it appears reasonably clear that a collective in this area is feasible and could operate at a relatively low cost. There might, however, be some increase in the flow of funds to non-Canadians as the result of the operations of this collective. In addition, there might be complications involved in any system of strict copyright payment as a result of existing and future television content regulations by government.[20] This aspect of the problem is also beyond the scope of this study.

3. Sound recordings and performers. Under the existing Copyright Act, there is no copyright provision for a performing right for sound recordings[21] nor is there provision for a performers' copyright.[22] In this area again, the issue of collectives depends upon the establishment of a property right surrounding which there are substantial differences of opinion. Keyes and Brunet recommended that a new Act should provide for a performing right for sound recordings if the majority of the elements required to produce the recording are Canadian and that a right in performances by Canadian performers sould also be part of a new Act (1977, pp. 89 and 117 respectively). The studies by Keon and by Globerman and Rothman both argued that there are no apparent net benefits from creating such rights.

Under the existing Copyright Act, composers and music publishers have a right to copyright payments when their material is used, for example, on radio or television broadcasts. CAPAC and PROCAN exist to collect and distribute these payments. The other parties involved in the production of the recording used on radio are the performer and the record company, who now have no right to payments for the public performance of the recording. A performing right for sound recordings, if instituted, would allow record com-

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20. Specifically, there are potential problems if CRTC regulations require a cable system to carry a particular program. Under a regime of strict copyright, this would put the cable system in an unreasonable bargaining situation with the copyright holder.

21. See Keon (1980).

22. See Globerman and Rothman (1981).

panies to share in the revenues from performances, and similarly a copyright to performers would allow them to share in these revenues.

The extension of performing rights to sound recordings and performers would likely lead to an expansion of the system of collectives. The existing performing rights societies (CAPAC and PROCAN) are now set up to monitor performances and could conceivably provide the data to organizations representing these new rights holders. It is beyond the scope of this study to debate the merits of altering the Copyright Act to allow the collective exercise of these new rights.

Rights to Be Collectively Administered

This section deals with two aspects of the rights to be administered by collectives. The first issue reflects the fact that in some fields copyright holders have expressed strong reservations about any system which would require them to assign their rights to a collective. The second issue is the breadth of rights to be exercised collectively. Earlier in this paper a copyright collective was defined as an organization which exercises property rights which cannot be economically enforced individually. It is clear, however, that the members of a collective could conceivably choose to pool their rights and exercise all of them on a collective basis. Both of these issues are examined in this section.

Assigning rights to a collective. The 1971 Report of the Economic Council of Canada indicated that changes in technology were leading to a situation in which the collective administration of rights would become of greater importance. The Report further recognized the potential problems raised by the existence of collectives for copyright holders who did not wish to have their rights enforced collectively. The Council argued that "the extension of public regulation that we have in mind here would not be such as to force an author or other creative person to yield up his work to any particular processing and distribution system" (pp. 151-52).

However, the Report continued with a discussion of the potential problems for users if individual negotiation were required. A system of collective management of rights, particularly in the area of electronic information systems, may be necessary "to ensure that their advantages to the public of speed and convenience are not largely vitiated by prolonged haggling and by complicated and expensive copyright billing arrangements for individual works" (p. 152).

From the perspective on collectives that has been adopted in this study, it is unlikely that the potential conflict discussed above will materialize in many instances. Under the working definition of a collective referred to previously, a collective would deal only with rights that could not be efficiently administered on a private basis. If this is the case, it would then not be in the interests of individuals to refuse to participate in a collective since, by definition, the costs of private collection exceed revenues.

As an example, consider the case of photocopying. It appears that there are economies of scale in collecting and distributing photocopying royalties. It also appears that the costs of undertaking these activities would be substantial, even for a collective which is able to realize scale economies. It is extremely unlikely, therefore, that an individual author, for example, would ever choose to try to enforce these rights individually. It does not, therefore, appear necessary to have any statutory declaration on this subject; surveillance of the issue could be undertaken by the Copyright Tribunal, which would have residual authority to limit the extent of costly individual negotiation.[23] This point is discussed in more detail in Chapter IV, which deals with the role of a Copyright Tribunal.

A related aspect of this problem deals with the rights that would actually be transferred to the collective by copyright holders. Again, a complicated statutory approach does not appear necessary. In general, these kinds of decisions could be left to the members of the collective who have the most direct interest in the form of the relationship between the collective and its members. The Copyright Tribunal might be authorized to hear complaints from members or potential members of a collective about the terms of the membership agreement, and there are some general principles which could be adopted by a Tribunal. The membership agreement should be structured to allow the collective to operate efficiently, including, for example, to undertake actions for infringement, but the rights transferred should not exceed those which are necessary for the efficient operation of the collective. In particular the membership agreements should not impinge on the ability of

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23. This is essentially the position adopted by the <u>Report</u> of the Economic Council. See especially p. 152.

copyright holders to control uses of their works in areas other than what have been termed the secondary uses, which are the subject of collective action. Under these general guidelines, collectives might operate on an agency basis (as is the case with CMRRA, for example) or they might operate on the basis of partial assignment via contract of the underlying rights.

Constraints on the collective exercise of rights. The purpose of copyright collectives is to facilitate the exercise of copyright in situations in which the individual exercise of these rights is not economical. If there are not important barriers to this type of activity in the form of high transactions costs, the collective exercise of rights can increase the extent of appropriability and extend the incentive functions of the Copyright Act to secondary uses of copyright material. However, the creation of new collectives should not lead to any reduction in the extent of competition among copyright holders in their primary markets. In contrast to the patent system a frequently stressed aspect of copyright is the extent of competition among copyright holders, since the property rights protect only a specific form of expression of an idea. The potential benefits, in terms of increased appropriability, under a collective system of copyright enforcement can be entirely dissipated if a system of collectives facilitates monopolization of previously competitive primary markets.

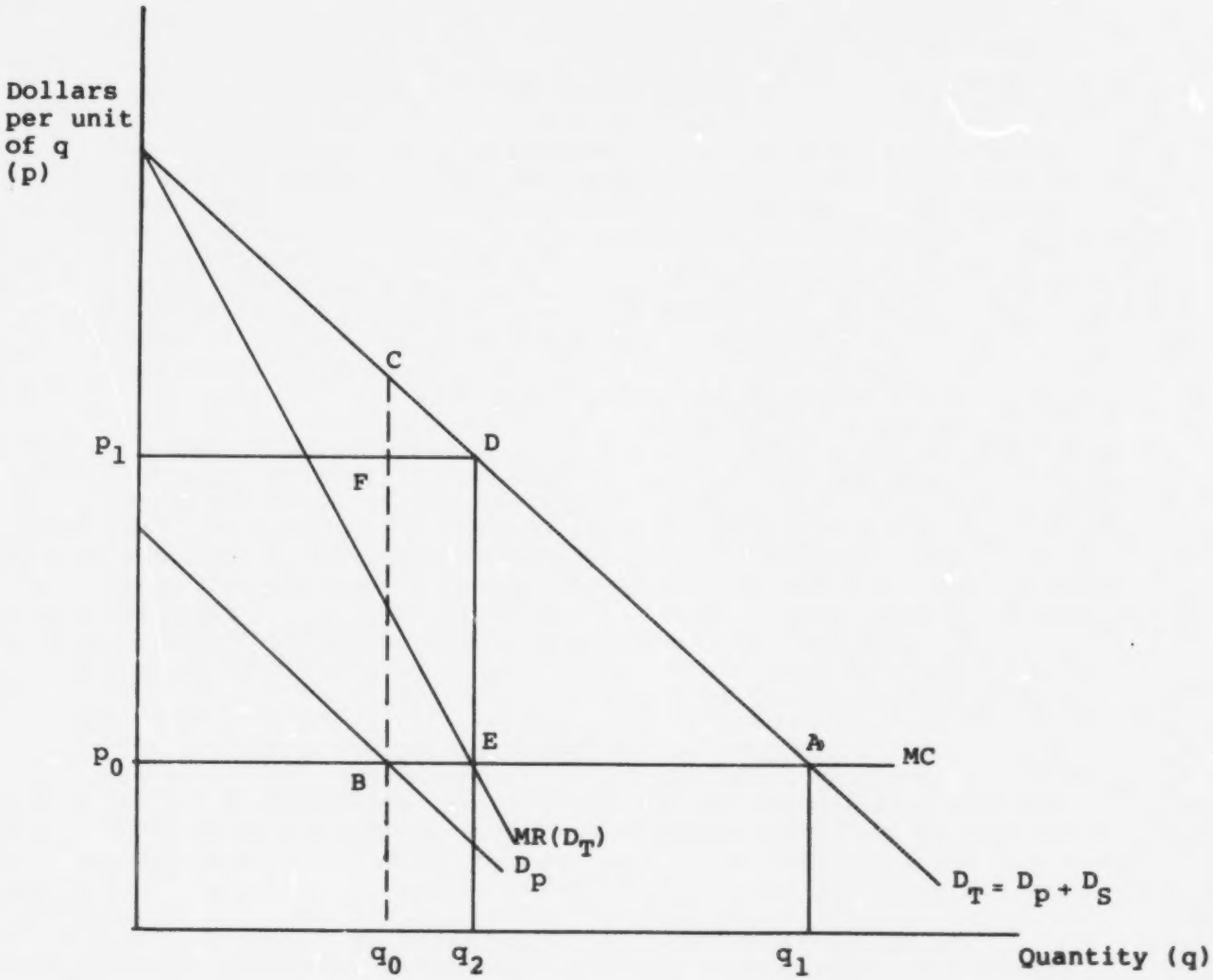
Figure 6, which is a modified version of Figure 4, can be used to illustrate this point. In Figure 6, D_T represents the total market demand for a particular category of copyright materials. D_T is the sum of D_p and D_S, the primary and secondary demand for this material. Incomplete appropriability means that D_T exceeds D_p. The result is a market equilibrium at price p_0 and quantity q_0. This is in contrast to the ideal competitive price-quantity combination of p_0 and q_1. The welfare loss resulting from incomplete appropriability is therefore area ABC.

If a copyright collective which operates as an effective and unregulated cartel is introduced, a price of p_1 would be established with output of q_2. This would be in contrast to the ideal competitive price-quantity combination of p_0 and q_1. The resulting welfare loss relative to the competitive ideal here is area ADE.

In the particular case illustrated in Figure 6, the welfare loss associated with the monopoly collective (ADE) is less than the welfare loss when returns can be appropri-

Figure 6

A Copyright Collective in the Primary and Secondary Market



ated only in the primary market (ABC). The monopoly collective has generated a welfare gain of area BCDE, which consists of an increase in producer's surplus of FDEB and an increase in consumer's surplus of CDF. With different initial assumptions about the degree of inappropriability and elasticity of demand, however, the result is turned around and the monopoly distortion exceeds the inappropriability distortion. In addition, factor market considerations underlying MC, which is drawn here as completely elastic, will have an impact on the net result.

The situation as depicted in Figure 6 has essentially established the copyright collective as a trade union that acts as a monopolistic seller of copyright works in the primary and secondary markets. However, if membership in the collective is voluntary, it is unlikely that the collective could operate as a completely effective monopolist. Individual creators would have an incentive to increase their own output at prices below p_1.[24] Nevertheless, the fundamental point remains that the extension of collective activity from the secondary market, where it may be necessary, to the primary market is undesirable. Any attempt by a collective to extend its activities to the primary market should expose the collective to prosecution under the Combines Investigation Act. The maximum welfare gain in Figure 6 results from moving to output q_1 at price p_0.

This paper has argued that to protect individual rights holders, a collective should require the assignment or licensing of the minimum component of the entire rights package that is necessary for the efficient operation of the collective. The above reinforces that point and indicates that one potential task of a Copyright Tribunal would be to prevent the spillover of collective action into the primary market. The extension of collective activity into the primary market is undesirable because it simply creates rents for copyright holders and, rather than increasing output as intended under the Copyright Act, leads to artifical restrictions on the output and sale of copyright works.

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24. If this type of monopoly collective established a standard price or otherwise attempted to direct rents to the average member of the collective, we would expect to observe the unique or "star" performers in the market refusing to belong to the collective.

The Economic Impact

As in the case of patents, specification of the optimal degree of copyright protection involves a balancing of the costs of restricted use of existing material due to higher prices against the costs of less output when actual and potential creators are unable to fully appropriate the returns from their work. The economic impact of a system of copyright collectives is based, therefore, on a comparison of the incentive effects and the output restriction effects resulting from collective action. The general formulation must be broadened somewhat to include the extent of transactions costs under a series of collectives and also the extent to which regulation by a Copyright Tribunal may lead to a price being established close to the competitive rather than the monopoly price.

As the previous section indicated, a copyright collective will act in a manner analogous to a trade union if the rights assigned to it allow it to establish prices in both the primary and secondary markets. However, in this section, we assume that collectives are prevented from operating in the primary market. Although a number of commentators refer to the monopoly granted to creators under the existing copyright system, the extent of monopoly power actually conferred is an empirical question. If, as appears to be true for a wide variety of copyright works, there are many close substitutes, then the price charged would be close to the competitive price and monopoly power will be slight. Whatever the existing degree of competition in the primary markt, we assume that it is unaffected by the emergence of collectives to enforce property rights in new areas.

The relevant case, therefore, is the one in which copyright holders who continue to compete in the primary market organize a collective institution to administer their rights in the secondary market. Consider as an example the case of photocopying. Authors and publishers would continue to negotiate with each other and with the users of printed material. The existing degree of competition in areas where copyright payments are now made would be unaffected. Abstracting from fair dealing and exemptions, we could now conceive of a photocopying collective that administered, on behalf of copyright holders, the rights to all printed materials that are copied. In this case again, in the absence of some form of regulation, the collective would be like a trade union that would establish a monopoly price for photocopying. The high costs of individual enforcement would mean that there would likely be few attempts to cheat on the

cartel by way of price cutting in individual negotiations. The welfare effect of the enhanced price in this situation would then have to be balanced against the incentive effect on authors and publishers.

The operation of an unregulated collective in the secondary market alone is analogous to the situation depicted in Figure 6. In this case, however, we would be dealing only with D_S, the secondary demand curve, and output would be established at the intersection of the curve that is marginal to D_S and marginal cost (see Figure 7). The unregulated copyright collective obviously falls short of the competitive ideal. Output is restricted to q_1 and sold at price p_1, which is in contrast to p_0 and q_0, the competitive price and quantity.

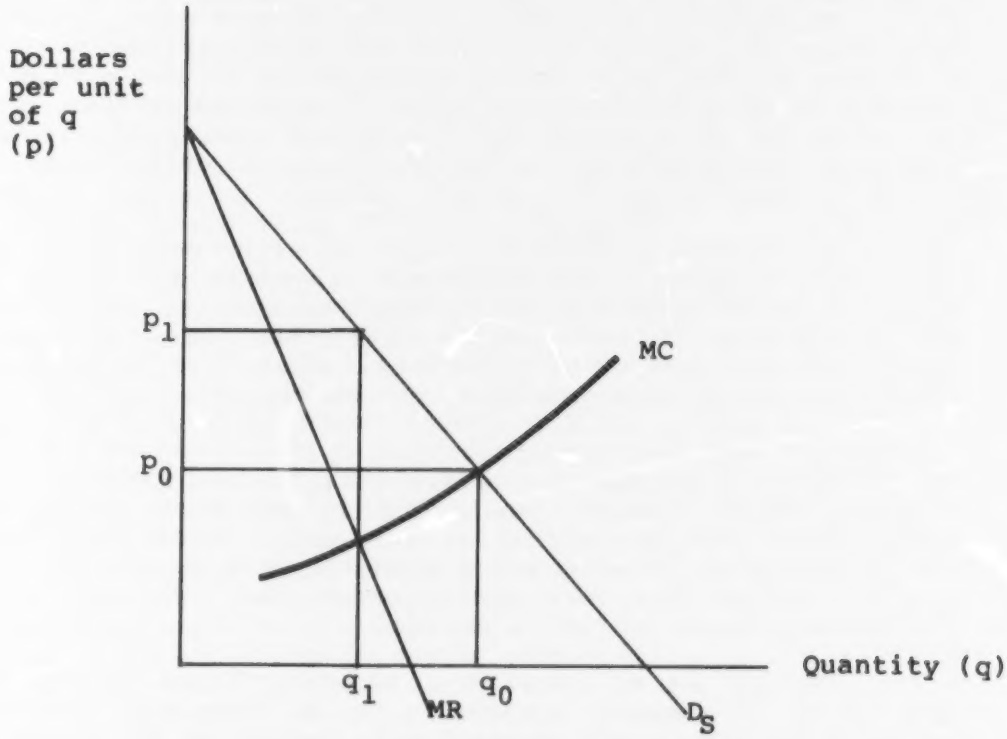
The potential monopoly power of copyright collectives has not been ignored in other studies on this subject. The Economic Council (1971) argued that changing technology appeared to require an extension of the performing rights society approach to other areas in order to maintain the incentive features of the copyright system. The general point of view of the Economic Council and its concern with the potential monopoly power of collectives are both described in the following:

> We therefore recommend here an adjustment of the Copyright Act to permit the wider use of the performing-rights-society approach, including its extension into the field of printed and other materials. With this must be associated another recommendation, that the powers of the Appeal Board to regulate the fees and royalties of such "collectives" and the powers of the Minister to issue compulsory licences must also be enlarged, so that the protection of the public that has necessarily gone along with the formation of performing-rights societies in the past can be provided. (1971, p. 151)

The extent of regulation of collectives is the subject of the following chapter. It is certainly true that the climate of economic opinion with regard to the costs and benefits of regulation has altered since the Economic Council study (1971). The recent (1981) report on regulation by the Economic Council reflects the trend that stresses the extent and effectiveness of previously unrecognized market forces which would operate in the absence of regulation. However, this alteration in the economic climate is not

Figure 7

The Operation of a Collective with a Monopoly in the Secondary Market



entirely relevant in the context of collectives, since the underlying argument here has been that collectives have strong natural monopoly elements. There appear to be significant economies of scale in the many-creators, many-users case, and the pressure for regulation in the area is simply a reflection of the natural monopoly problem.

A similar concern with the potential exercise of monopoly power in the secondary market is shown in the study by Keyes and Brunet (1977). Their report concludes that there is a need for the collective exercise of copyright with respect to sound recordings, performers and photocopying (p. 209). The model of such collectives according to Keyes and Brunet would be the existing performing rights societies.

The extent of market power and the potential economic impact of collectives can be viewed in the perspective of the existing societies. In Canada, performing rights in the music business are administered by CAPAC and PROCAN. Although these organizations do not control all music, they do hold the performing rights for virtually all music that is played.[25] The performing rights societies in Canada have international agreements on monitoring and collection with societies in other countries, so that from the point of view of potential music users the rights to any music they might wish to use are controlled in Canada by CAPAC and PROCAN.

Although this chapter deals primarily with the competitive impact of copyright collectives, the preceding section illustrates the potential gain to copyright users of a system of collective administration of copyright. Due to the international agreements among performing rights societies, it is possible for a user to make legal use of virtually all of the copyright music in the world simply by dealing with CAPAC and PROCAN. In contrast to a system of individual negotiation and strict copyright payment requiring permission in advance, there are clear efficiency gains to users from having to deal with only two groups of rights holders. This type of efficiency gain is also potentially available through the operation of a photocopying collective which could reduce the access costs of libraries or handicapped users in seeking, for example, permission for talking books, which under the current system can pose difficulties.

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25. Some music is in the public domain, the original copyrights having expired, but even when music of this kind is used, it is frequently the case that a version using a new copyright arrangement is used.

The specific recommendations of Keyes and Brunet on collectives and on measures to minimize their negative impact on competition are outlined below.

> It seems inevitable that the trend of exercising copyright through collectives will continue. If so, it is apparent that there will be a need for constant and vigilant regulation of the operations of all collectives. There is nothing in the present Copyright Act to prohibit the formation and operation of organizations to collectively exercise copyright; as a necessary adjunct, a specific agency should be created to regulate such collectives. Indeed, during the consultation process, it was recognized that it would be necessary to revise and expand the role of the present Copyright Appeal Board. (1977, p. 213)

This position is consistent with the view of the potential impact of copyright collectives adopted in this study. Assuming that the transactions costs of these operations are not excessively high, copyright collectives may promote a higher level of economic efficiency. However, this beneficial aspect of collectives may be largely offset if the collective is able to act as a monopolist in the secondary market. Experience in Canada with the existing performing rights societies and in the United States under the consent decrees[26] of 1960 and 1966 appears to have demonstrated that the activities of these collectives can be effectively monitored in the public interest at low cost. Most proposals for public scrutiny of the operation of collectives argue for a greater role for the Copyright Appeal Board, which could be renamed the Copyright Tribunal in any new legislation. The following chapter provides an analysis of some of the possible areas in which a new Copyright Tribunal might act in regulating the operation of collectives.

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26. The consent decrees relate to the operations of the American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music Inc. (BMI). Under these decrees the societies must license music users, and if negotiations fail to yield a rate agreeable to both sides the court will establish an interim fee. For a description of the operations of ASCAP and BMI and the format of public regulation under the decrees, see National Commission on New Technological Uses of Copyrighted Works (CONTU) (1977).

Chapter IV

THE COPYRIGHT TRIBUNAL

Under the existing Copyright Act the activities of the performing rights societies are regulated by the Copyright Appeal Board. The following portions of the Act have a direct bearing on the potential regulation of new collectives by a Copyright Tribunal.

> 48.(1) Each society, association or company that carries on in Canada the business of acquiring copyrights to dramatico-musical or musical works or of performing rights therein, and deals with or in the issue or grant of licences for the performance in Canada of dramatico-musical or musical works in which copyright subsists, shall, from time to time, file with the Minister at the Copyright Office lists of all dramatico-musical and musical works, in current use in respect of which such society, association or company has authority to issue or grant performing licences or to collect fees, charges or royalties for or in respect of the performance of its works in Canada.
>
> (2) Each such society, association or company shall, on or before the 1st day of November in each and every year, file, with the Minister at the Copyright Office, statements of all fees, charges or royalties which such society, association or company proposes during the next ensuing calendar year to collect in compensation for the issue or grant of licences for or in respect of the performance of its works in Canada.
>
> (3) Where any such society, association or company refuses or neglects to file with the Minister at the Copyright Office the statement or statements prescribed by subsection (2), no action or other proceeding to enforce any civil or summary remedy for infringement of the performing right in any dramatico-musical or musical work claimed by any such association, society or company shall be commenced or continued, unless the consent of the Minister is given in writing. R.S., c. 55, s. 48.

49.(1) As soon as practicable after the receipt of the statements prescribed by subsection 48(2), the Minister shall publish them in the Canada Gazette and shall notify that any person having any objection to the proposals contained in the statements must lodge particulars in writing of his objection with the Minister at the Copyright Office on or before a day to be fixed in the notice, not being earlier than twenty one days after the date of publication in the Canada Gazette of such notice.

(2) As soon as practicable after the date fixed in the notice referred to in subsection (1), the Minister shall refer the statements and any objection received in response to the notice to a Board to be known as the Copyright Appeal Board. R.S., c. 55, s. 49.

50.(1) The Copyright Appeal Board shall consist of three members, who shall be appointed by the Governor in Council.

(6) As soon as practicable after the Minister has referred to the Copyright Appeal Board the statement of proposed fees, charges or royalties as herein provided and the objections, if any, received in respect thereto, the Board shall proceed to consider the statements and the objections, if any, and may itself, notwithstanding that no objection has been lodged, take notice of any matter that in its opinion is one for objection; the Board shall, in respect of every objection, advise the society, association or company concerned of the nature of the objection and shall afford it an opportunity of replying thereto.

(8) Upon the conclusion of its consideration, the Copyright Appeal Board shall make such alterations in the statements as it may think fit and shall transmit the statements thus altered or revised or unchanged to the Minister certified as the approved statements; the Minister shall thereupon as soon as practicable after the receipt of such statements so certified publish them in the Canada Gazette and furnish the society,

association or company concerned with a copy of them.

(9) The statements of fees, charges or royalties so certified as approved by the Copyright Appeal Board shall be the fees, charges or royalties which the society, association or company concerned may respectively lawfully sue for or collect in respect of the issue or grant by it of licences for the performance of all or any of its works in Canada during the ensuing calendar year in respect of which the statements were filed as aforesaid.

(10) No such society, association or company shall have any right of action or any right to enforce any civil or summary remedy for infringement of the performing right in any dramatico-musical or musical work claimed by any such society, association or company against any person who has tendered or paid to such society, association or company the fees, charges or royalties that have been approved as aforesaid. R.S., c. 55, s. 50.

At this point it is not clear that this framework would not continue to operate effectively if collectives began to operate in other areas.

The major problem in addressing completely the issues to be dealt with by a new Copyright Tribunal is the uncertainty surrounding the number of collectives that might actually operate. Chapter III indicated that there is substantial uncertainty about the economic viability of collectives in some areas and also about the extent of other changes in the Copyright Act that would be necessary to allow collectives to operate in other areas where economic viability does not appear to be a problem. The present chapter must necessarily be conjectural, since the activities of a Copyright Tribunal will depend on the number of collectives actually operating and on the scope of their activities. It discusses some of the issues that would be important for a Copyright Tribunal on the assumption that collectives will, in part, play a larger role in the copyright field under a revised Act.

The Number of Collectives

In this and other areas in which the Copyright Tribunal may operate, there appear to be two general points of view to consider. Proponents of the first approach favour a more activist Tribunal, which would closely regulate whatever collectives do exist and would in the area under discussion choose to license a fixed number of collectives. The number would be selected by the Board to minimize the extent of transactions costs in dealing with collectives. Advocates of the second approach envision a more market-oriented system, in which a nonactivist Tribunal would continue to act as an appeal body like the existing Copyright Appeal Board. The issue of the number of collectives and whether collectives need to be "licensed" or "registered" provides a useful illustration of these contrasting viewpoints.

The first scenario for the Copyright Tribunal corresponds to the activist point of view. A revised copyright law would remove the existing ambiguity about the legal status of copyright collectives but would at the same time spell out requirements for the operation of collectives. The best analogy for this form of regulation is the legal status of trade unions under the existing labour relations statutes. Trade unions must be certified, and the labour relations boards have wide discretion to interpret statutory provisions relating to the determination of the appropriate bargaining unit. The factors underlying these decisions include the community of interest of the members of the unit and efficiency of administration. Labour relations boards are tripartite, reflecting the requirement of specialized knowledge of all aspects of the field to make decisions of the type described.

The alternative approach reflects a market orientation, in which decisions about the operation and management of collectives would be left largely to the members of the collective. If individual members of the collective felt that they were being unfairly dealt with by the collective (e.g., refused admission for whatever reason), they would always have the right of appeal to the Tribunal. Similarly if users of copyright material felt that the number of collectives put undue administrative burdens on them, they could appeal to the Tribunal to request either some kind of rationalization of the structure or alternatively a revision of the tariff to compensate them for the administrative costs resulting from the existing structure.

Although there are a number of areas in which the buyer-seller relationship between users and collectives places them squarely in an adversary relationship, there is,

in general, a mutual interest in efficiency of administration. Any efficiency gain can presumably be shared by the two sides so that collectives do not have an interest in establishing an inefficient administrative structure.

The situation involving collectives is differentiated somewhat from the trade union situation described above. Trade unions are monopoly sellers of labour, and a multiplicity of units may disproportionately benefit members of the most highly skilled categories if the demand for their services is more inelastic than the demand in a larger group. It is precisely this type of situation which the appropriate bargaining unit guidelines of the various labour acts are intended to deal with. However, as pointed out in Chapter III, we would not want collectives to exercise all property rights relating to copyright, but rather, we would expect their activities to be confined to the secondary market. In this market, economies of scale in administration and enforcement of rights appear to be sufficiently important to offset whatever gains might result from smaller units. For this reason the admittedly limited investigations underlying this study suggest that the Tribunal is unlikely to be faced with a multiplicity of overlapping collectives. The self-interest of rights holders is likely to lead to a limited number of collectives that would not impose large administrative costs on users.

The above considerations suggest that, at least in the first instance, an activist, interventionist Copyright Tribunal may not be required to deal with the number of collectives. The self-interest of the rights holders who belong to the collective appears to lie in capturing economies of scale rather than in establishing extremely specialized collectives. This point of view is related to that found in the Economic Council of Canada discussion of the regulation of collectives, with specific reference to electronic information systems.

> We would very much hope that in the present, early phase of development, when electronic systems must make their way against competition from older, better-established information systems, appropriate fee and billing arrangements will emerge as a natural result of competitive pressures, without the need for specific legislative intervention on this score. But if serious impediments emerge to the development of socially desirable systems, there should be fall-back provisions for their removal. (1971, p. 152)

Following a revision of the Copyright Act the scenario implicit in this chapter involves the formation of copyright collectives which would then begin negotiating with users. At any stage in this process, dissatisfied actual or potential members of collectives could appeal to a Tribunal on the grounds that their rights are being adversely affected by the membership structure or restrictions of collectives. Users would have a similar right of appeal, although the appeal process here would most logically be limited to the time of submission for approval of a tariff to the Tribunal by a collective. At this stage in the first set of tariffs being proposed by collectives, the Tribunal could hear complaints from users about the number of collectives and their impact on the cost to users of securing permissions and conforming to other provisions of the agreement under the collective. This approach appears to provide adequate protection for users while at the same time not generating an excessively burdensome regulatory framework.

Regulation of Tariffs

The excerpt from the Copyright Act that appears at the beginning of this chapter describes the role of the Copyright Appeal Board in regulating the various tariffs of CAPAC and PROCAN. The performing rights societies submit proposed rates, which frequently have been agreed upon by users, to the Minister of Consumer and Corporate Affairs Canada. The Minister publishes the proposed tariffs in the Canada Gazette and then refers the proposed tariffs and any objections to the Copyright Appeal Board. Although, in practice, the Board is unlikely to object to any rate that has not been the subject of external objection, it remains free to do so under the Act. The Board then transmits the approved tariffs to the Minister for publication in the Canada Gazette, and the published tariffs are the fees that the performing rights societies may legally collect in the following year.

For the performing rights societies the tariffs are generally expressed as some fraction of the revenues of a radio or television station, for example, so that the amount of money collected from each user is related to the value of copyright music used. This system does not allow variation in payments on the basis of which copyright works are used. In fact the system is one in which copyright holders are required to allow all users complete access to their material for performances and the function of the Copyright Appeal Board is to determine the price at which this compulsory licence is available to users.

This is not necessarily the type of contract that must govern the relationship between users and copyright holders. It is used in the music business for performing rights because the costs of negotiating a price list on the basis of individual titles and enforcing the resulting agreement would exceed the expected payments. However, it is conceivable that there could be areas in which the members of a collective would negotiate a price for individual components of the repertoire and that a compulsory licence would not be involved. An example of a collective organization operating other than on the basis of a compulsory licence can be found in some of the activities of CMRRA. Although most CMRRA revenues do come from the statutory compulsory licence relating to the mechanical rate, it also collects royalties that are derived from the synchronization right, for which there is no statutory tariff. For example, if copyright music is used and affixed in the production of a film or a television commercial, CMRRA acts as a collection agency even though the terms for the use of the music may have been negotiated individually.

This example indicates the nature of the linkage between the rights assigned to a collective and the nature of the tariff. As discussed in Chapter III, CMRRA operates as an agent and is granted a nonexclusive licence by the copyright holder. CMRRA could therefore transact all business relating to mechanical royalties for a copyright holder, while that individual could negotiate synchronization rights privately and simply use CMRRA to collect. The nonexclusive licence allows both private and collective enforcement of the copyright. In contrast, CAPAC and PROCAN take an assignment of the performing rights and therefore have the exclusive right to engage in transactions based on this right. It is these transactions occurring under the terms of a compulsory licence which are regulated by the Copyright Appeal Board. The Tribunal should operate in a way that permits the development of this kind of mixed system which allows individual negotiations and variable prices, with the collective acting not to set prices but simply to perform the collection function following private negotiations.

This section has indicated that not all transactions in which a collective is involved will necessarily involve a compulsory licence.[1] However, when the costs of negotiating and enforcing a price list became too high, we would then see a movement to the compulsory licence. In this

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1. For a discussion of the role of compulsory licences, see Ringer (1979).

light we can consider the argument that a compulsory licence involves economic inefficiency.

In principle it is true that, in an ideal world, there should be variations in the prices of copyright works reflecting differences in values to users. A compulsory licence in which the fee is some fraction of gross revenue allows variation in payment based on the quantity of use but not on the basis of differences in the value of different titles to consumers. In an ideal world, there would be different market prices for different works, and a compulsory licence is inefficient when judged by this standard. However, in the ideal situation, there are, by assumption, no transactions costs. The real world clearly does involve transactions costs and therefore the efficiency standards of an ideal world cannot define efficiency in a world of transactions costs (Demsetz, 1969). A compulsory licence may, in fact, be the most efficient institutional arrangement available to maintain the incentive function of the copyright system.

Examples confirming this point are common in the economics literature and in institutional arrangements designed to minimize transactions costs. Barzel (1977) describes an analogous situation in the diamond industry. The leading diamond firm in the world sells sealed and certified bags of diamonds at a fixed price and does not allow customers to compare bags. Prices do not, therefore, fully reflect buyer valuations. This "inefficiency" is, however, more than offset by the reduction in search costs, and all parties, therefore, gain from the arrangement. Similarly, in his work on patents and innovation, Cheung (1976) has argued that transactions costs prevent the attainment of ideal pricing rules for all commodities.

> In every transaction...given positive costs of measurement, some valuable properties will not be graded or metered and therefore are not directly priced....both the choice of property for measurement and the margin at which the measured property is carried in a transaction depend upon the gains and costs of measurement and of the related transaction. (pp. 10-12)

The issue has several implications for the operation and regulation by a Tribunal of copyright collectives.[2]

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2. There are implications for other areas of copyright policy as well. In principle a fixed mechanical rate that is invariant across titles is inefficient, but this again

First, a Tribunal should be receptive to the concept of differentiated prices where transactions costs make this feasible. To the extent that it is possible to have individual negotiation with competition among copyright holders, there is no apparent requirement for regulation by a Tribunal, even if collection is not undertaken individually. Second, the discussion in the preceding paragraphs indicates that there is no necessary inefficiency involved in a compulsory licence, and the likelihood that a collective could operate only by way of a single price is not necessarily an indication that such collective action is undesirable in terms of economic efficiency. In the case of a compulsory licence, however, we move away from negotiated market prices and the competition underlying the establishment of these prices. Therefore it would appear desirable to have the Copyright Tribunal review these rates upon the request of either side or at its own initiative in much the same way that the Copyright Appeal Board now must approve tariffs for CAPAC and PROCAN. The general principles underlying the rates to be established by way of this type of regulation have been described by the Economic Council. In its view, "compensation should be in proportion to use and each user should pay his fair share" (1971, p. 141).

Distribution of Revenues by Collectives

The distribution of revenues becomes a contentious issue if monitoring the use of copyright material is costly. The greater are such costs, the greater the probability that some form of lump-sum payment will replace a fee schedule that varies with the use of the protected material. The movement to a lump-sum payment system means that the collective will have to devise some system other than payment on the basis of use rates for distributing its revenues among its members.

Although it is not likely that a Tribunal would wish to involve itself in the mechanics of revenue distribution for each collective, it should be the vehicle to hear appeals that the structure of the distribution system is unfair. In this way the Tribunal would act to guarantee due process in rule making within the collective in much the same way that labour relation boards now are charged with administering the "fair representation" provisions of labour relations acts.

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may be offset by economies in transactions costs. This abstracts from the debate about the appropriate price for the mechanical royalty.

The existing performing rights societies appear to provide reasonable guidelines for fairness in the distribution of revenues. Payouts to members are on the basis of use of copyright material, and there are no artificial barriers to restrict entry into these collectives. If new collectives are organized along the lines of the existing performing rights societies, there appears to be no necessary role for the Tribunal beyond that of an appeal body. The nature of remedies that the Tribunal might fashion if it found, on appeal, absence of due process is again the type of administrative issue that is beyond the scope of this study.

Chapter V

SUMMARY AND CONCLUSIONS

Overview

The focus of this study has been the potential operation of copyright collectives in Canada. The economic rationale for collectives, the costs and benefits associated with their operation and the extent to which some of their activities might be regulated have all been analyzed in some detail.

The central factor in generating interest in copyright collectives has been the development of new technology that has lowered the cost of reproducing protected works. Photocopying, home taping of audio and visual recordings and the new technologies associated with television are examples of the changes that provide both problems and new opportunities for copyright holders. The important aspect of these new technologies, from the point of view of copyright holders, is that they generate new or secondary uses of copyright works for which copyright holders are either not compensated or are not compensated in the same way that they are compensated for traditional uses. Collectives are designed to allow copyright holders to capture the returns from secondary markets in which their materials are used.

This study is not the first Canadian study to deal with copyright collectives as a response to changing technological circumstances that appear to have exacerbated the appropriability problem and weakened the incentive function of the copyright system. The Economic Council in its Report on Intellectual and Industrial Property (1971) argued that there were potential benefits from extending the performing rights society concept to other areas. The Economic Council, in fact, explicitly recommended that the Copyright Act be adjusted to permit collectives to operate subject to regulation by a Copyright Tribunal to prevent possible abuses from the collective exercise of rights.

The recommendations of the Economic Council reflect the general tension underlying the copyright system, which is also evident in much of the debate surrounding collectives. The purpose of the copyright grant is to provide incentives for individuals to produce creative outputs. The copyright allows these individuals to capture some of the returns from their work but in so doing will inevitably restrict the circulation of works that have already been pro-

duced. Copyright collectives, in practice, have the potential to generate market power for producers if they control a spectrum of rights which previously had been competing in the marketplace. It is for this reason that the Economic Council argues that if collectives develop, they should be regulated like natural monopolies.

In addition to the Economic Council Report, collectives have been the subject of analysis in two other Canadian studies. Keyes and Brunet (1977) argue that in a number of areas, technology has altered the use of copyright works and that collectives are necessary to restore the position held by creators prior to these changes. Magnusson and Nabhan (1982) make a similar argument that collectives should be established to increase the existing degree of appropriability and thereby increase the incentive to produce copyright material. The following sections provide a summary of the economic issues involved in determining the effects of copyright collectives as well as the conclusions of this study's analysis and its limitations.

The Economic Issues

The standard economic analysis of copyright protection focusses on the problem of appropriablity. In the absence of copyright protection, publishers and other sellers of creative outputs are unable to capture all of the returns from their works. Copiers, facing only the variable costs of reproduction, are able to capture a share of the market. This lowers the price of books, which in this example have already been printed, but reduces the incentive to produce more titles. The optimal degree of copyright protection must balance the welfare loss associated with less output when there is incomplete appropriability against the welfare loss from reduced sales of existing copyright works as the result of higher prices resulting from the copyright grant. In contrast to the patent system, where the patent confers a monopoly on an idea, the monopoly aspect of copyright is generally regarded as substantially less severe, since only the specific form of expression of an idea is protected. Copyright works will therefore generally have very close substitutes, which limit the potential monopoly power of copyright holders.

The central analytical problem underlying this study is a property-rights issue. The economic analysis of property rights asserts that property rights should be structured to produce the greatest possible degree of economic efficiency. In this framework, there are no natural property rights; they are defined on a utilitarian basis. Proper-

ty rights exist to structure transactions efficiently among individuals. In the absence of private property rights in land, for example, one would not expect to see the same degree of investment in conservation and other activities undertaken with a view to returns in the long run. In a property-rights framework, recent changes in technology have attenuated property rights, and the purpose of this study is to assess the circumstances in which an alteration in property rights or in the way property rights are enforced will produce net social benefits.

In this study a copyright collective has been explicitly defined in terms of economic efficiency. It has been defined as an organization to collectively enforce property rights that cannot be economically enforced individually. The point of this definition is to exclude collectives formed solely for the purpose of generating monopoly rents. For example, it is technically possible that all holders of copyrights in a particular area might agree to act collectively in dealing with all of these rights. If they were to do so, they may be able to reduce the extent of competition among rights holders and generate rents. As there appears to be no economic rationale for this form of organization, it has been explicitly excluded from this study.

In general, then, we would expect to observe collectives operating in areas where technology has generated new uses that are difficult to deal with individually. Collectives now exist in the area of performing rights for musical works but are not active elsewhere. Collectives may fail to exist for two reasons. First, there may not be a legally enforceable property right to serve as a basis for contracts. The absence of any reference in the Copyright Act to collectives outside the music business is sometimes interpreted as a limitation on the extent to which rights could legally be enforced collectively. Second, even if there is an established property right, collectives may not exist because the transactions costs of enforcing rights are too high relative to the gains even when collective enforcement is chosen.

The extent of transactions costs under a collective regime turns out to be the central determinant of the desirability of collectives when the problem is analyzed in terms of economic efficiency. Transactions costs determine the dividing line between individual and collective enforcement and also between collective and no enforcement. If transactions costs are sufficiently high, the efficient outcome may be that property rights are not enforced and are

therefore without value. If transactions costs are low enough to make a collective feasible, they will also determine the form of operation of the collective. The choice, for example, between strict copyright payment with the collective simply acting as an agent and compulsory licensing will depend on the costs associated with these alternative pricing mechanisms. It should be stressed that any statements about the efficiency of collectives or of specific forms of operation must also include the costs borne by users under different institutional arrangements.

Copyright Collectives

The approach to the emergence of copyright collectives employed in this paper takes as given the desirable incentive functions of the copyright system. That is, there is no attempt to evaluate the efficiency of the entire system of copyright in Canada. The question is whether a system of collectives in the secondary market would make economic sense given the existence of copyright obligations in the primary market. If the rationale for copyright protection is valid, then it is the conclusion of the study that both primary and secondary users of copyright material should contribute to its cost of production.

The literature on public goods production provides an intuitive answer to the question of copyright obligations in the secondary market. If we consider a creative output characterized by substantial fixed costs that should be produced because social benefits exceed social costs, then revenues must cover the total cost of production if it is to be privately produced. In other words it is not possible to price this output at marginal cost. If secondary users pay nothing, then this requires a greater elevation of price above marginal cost in the primary market and a greater welfare loss than if there are smaller deviations from marginal cost in both markets.[1]

The general conclusion of this study is, therefore, that a system of copyright collectives may promote economic efficiency. The efficiency gains are related to the strengthening of the incentive function as it relates to secondary markets and to the distribution of costs between the primary and secondary markets as described in the preceding paragraph. However, two provisos attach to this

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1. For a further explanation of this point, see Chapter II under the Collective Exercise of Property Rights, and Baumol et al. (1977).

recommendation. The first deals with transactions costs, which can make collectives or any other form of enforcement uneconomic. It is extremely difficult to estimate these costs in advance -- they can ultimately be judged in terms of collectives which are not established or which fail to operate on a break-even basis. The second proviso relates to the degree of competition in the markets for copyright works. Collectives should clearly not be permitted to extend their operations into the primary market, where individual negotiation is feasible. In addition it appears desirable to provide a forum like a Copyright Tribunal to allow scrutiny of tariffs established in the secondary market. Chapter III provides an extensive discussion of the operations of the existing collectives in the music industry and concludes that the operation and regulation of any new collectives could be modelled on the experience in this industry.

Research undertaken in the course of this study indicates that there is widespread interest in establishing new collectives. There is a considerable degree of uncertainty about the legal status of collectives and about their financial viability. However, there is a potential for new or extended collectives in a number of areas, including the following:

- photocopying;
- home taping: audio and video tapes, discs and records;
- films and television programs;
- performing right for sound recordings;
- performers' copyright.

Chapter III describes how collectives might operate in some of these areas. The major difficulties facing potential collectives in these areas relate to transactions costs and to copyright liability. In areas where there is less disagreement about copyright liability, the costs of operating a collective appear to be relatively high. Conversely, in areas where relatively low-cost collectives could operate, such as in the area of rediffusion of broadcasts and films, the desirability of copyright liability is a matter of substantial dispute.

The question of what rights should be administered by a collective is dealt with in Chapter III under Rights to be Collectively Administered. In general the position taken in this study is that collectives should deal only with those rights which cannot be efficiently administered on a private basis. This position avoids two potential prob-

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lems. First, it limits the spillover of collectives into the primary market, which would reduce competition, and second it is a solution to potential conflicts between collectives and their members. There is substantial concern among creators that they not be required to surrender rights to collectives, and in the approach taken here this would not be a serious problem. It is further argued that the Copyright Tribunal is the appropriate body to deal with whatever disputes might emerge between collectives and their members. The central point of the above-mentioned section is that the membership agreements of collectives must be structured to allow efficiency of operation, but these agreements should not reduce the ability of rights holders to negotiate prices for their works in the primary market.

The Copyright Tribunal

Chapter IV concludes that any extension of collectives beyond the existing collectives in the music business would lead to the formation of a successor to the existing Copyright Appeal Board. In terms of the economic issues related to the functioning of a new Copyright Tribunal, the major uncertainty as indicated above is the number of new collectives. It is conceivable that if there are few new collectives, the existing administrative structure could continue to operate efficiently. In general, however, the administrative aspects of the Copyright Tribunal are beyond the scope of this study.

From the perspective of this study, it appears desirable to establish a Copyright Tribunal with the authority to resolve disputes between collectives and users which could emerge in a number of areas. The first area deals with the number of collectives operating in a particular field.

One possible scenario to determine the appropriate number of collectives involves the Copyright Tribunal holding hearings to determine which collectives it should license. The argument of Chapter IV is that this may be an unnecessarily cumbersome approach. Although there is not a complete coincidence of the interests of creators and users on the number of collectives, the importance of their mutual interest in minimizing negotiations and other transactions costs is emphasized. For this reason, it is argued that we are unlikely to observe a substantial degree of overlap among collectives and that it is therefore possible to allow copyright holders to determine, in the first instance, how they wish to organize their collectives. It would then be possible for user groups to appeal to the Copyright Tribunal when the first set of tariffs being proposed by the collec-

tives is assessed. These appeals could take the form of requests either to restructure the collectives or to alter rates in a way that takes into account the administrative costs imposed on users by the collectives.

The central function of a Copyright Tribunal would be to approve the tariffs of collectives. It is argued that the existing procedures of the Copyright Appeal Board in dealing with the performing rights societies provide a useful model for the Copyright Tribunal. The extension of collectives should explicitly be acknowledged in a new Copyright Act and their tariffs made subject to regulation by the Copyright Tribunal.

Although it does not appear desirable to establish a system in which the Copyright Tribunal is actively involved in the mechanics of revenue distribution within collectives, the Tribunal should function as an appeal body to deal with complaints that the structure of the distribution system is unfair. In the performing rights societies, revenues are distributed on the basis of use of copyright material, and this principle should be reflected in the distribution formulae of new collectives.

Limitations of This Study

The field of copyright is inevitably complex. The property right conferred under the law structures transactions in a wide range of markets. Collectives could conceivably operate in many of these markets. The desirability from the point of view of economic efficiency of collectives depends crucially on transactions costs. This study has provided some impressionistic evidence on the costs associated with collectives in different markets, but this is obviously not a substitute for detailed information on costs. The difficulty of determining what the costs might be for an organization that does not yet exist is obvious. The absence of such data is, however, a serious limitation due to the crucial role of transactions costs in the analysis.

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